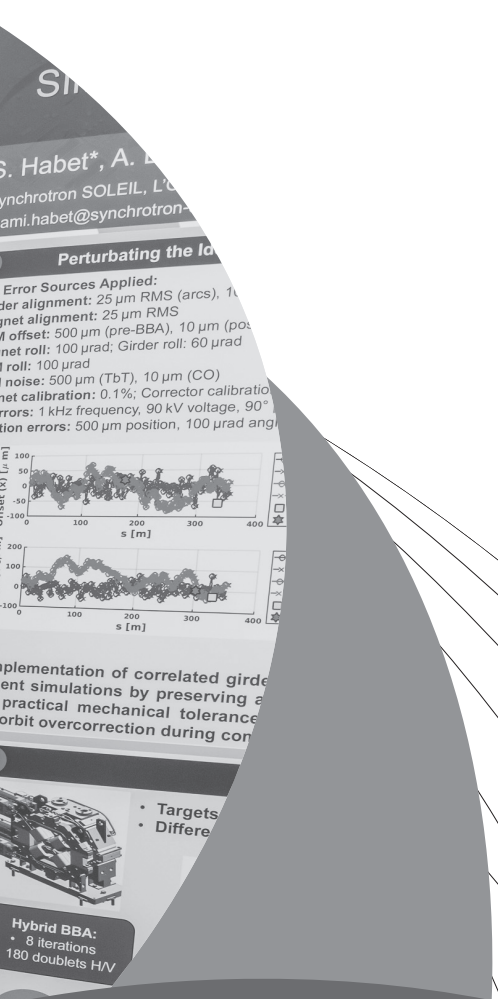
Perturbating the Ic
Error Sources Applied:
s [m]
s [m]
Hybrid BBA:
• 8 iterations
180 doublets H/V

Appendix

List of Publications

Publications (including conference proceedings) listed here are based on the results obtained from facilities associated with the NSRRC

Notes:

1. *Asterisks (*) indicate corresponding authors. Their Chinese names are shown in parentheses if applicable.*
2. *Publications are sorted by endstation and listed in alphabetic order according to the last name of the first author.*
3. *Publications using more than one beamline are listed in corresponding beamline sections.*
4. *Publications marked ◎ are selected to report in the sections of Research Highlights.*

Experiments Performed at NSRRC Beamlines

TPS 05A Protein Microcrystallography

◦ H.-Y. Chen, R.-F. Tsai, Y.-S. Lu, Y.-C. Cheng, H.-Y. Fan-Chiang, C.-Y. Wu, F.-C. Lo, H.-W. Kuo, W.-K. Yang, W.-Y. Liao, N.-J. Hu*(胡念仁), S.-C. Sue*(蘇士哲), and Y.-W. Chiang*(江昀緯), "*Structure and Nitrite Reductase Activity of the Di-iron Protein ScdA in Staphylococcus Aureus*", J. Am. Chem. Soc. **147**, 31558 (2025).

• C.-C. Chiang, Y.-J. Lu, J.-W. Liu, S.-W. Lin, C.-C. Chou, C.-H. Lin, I.-W. Chien, and C.-H. Hsu*(徐駿森), "*Structural Insights into 4,5-DOPA Extradiol Dioxygenase from Beta Vulgaris: Unraveling the Key Step in Versatile Betalain Biosynthesis*", J. Agr. Food Chem. **73**, 6785 (2025).

◦ C.-C. Cho, H.-H. Huang, B.-C. Jiang, W.-Z. Yang, Y.-N. Chen, and H. S. Yuan* (袁小玲), "*Histone Modification-driven Structural Remodeling Unleashes DNMT3B in DNA Methylation*", Sci. Adv. **11**, eadu8116 (2025).

• J. Feng, X. Xiao, X. Xia, J. Min, W. Tang, X. Shi, K. Xu, G. Zhou, K. Li, P. Shen, R. Bao, S. Wu, M. Lin, K. Yuan, Z. Lian, L. Hu, N. Li, Z. Wu, X. Zhai, X. Liu, K. Hu, J. Wu, C. Ding, H. Zhao, X. Gong, S. Zhang, J. Jin, D. Li, M. Liu, Y. Ye, B. Ma, R.-T. Guo*(郭瑞庭), A. Zhang*(張翱), and X. Pang*(逄秀鳳), "*A Pan-KRAS Inhibitor and Its Derived Degrader Elicit Multifaceted Anti-tumor Efficacy in KRAS-driven Cancers*", Cancer Cell **43**, 1866 (2025).

• Y.-H. Huang, T.-Y. Huang, M.-C. Wang, and C.-Y. Huang*(黃晟洋), "*Structural Basis of Potent Inhibition of the Human CAD Dihydroorotase Domain by 5-aminoorotic Acid*", Biochem. Biophy. Res. Co. **787**, 152804 (2025).

• Y.-T. Lai, C.-Y. Peng, H.-T. Liao, P.-Y. Hsiao, C.-K. Hsieh, Y.-R. Luo, S.-C. Huang, Y.-L. Wang, T. Ma, Y.-R. Chen, Y.-M. Kuo, Y.-C. Lin, John Chu, and C.-Y. Chang*(張晉源), "*Biosynthesis of Antituberculosis Antibiotic Capreomycin Involves a Trans-iterative Adenylation Domain within the Nonribosomal Peptide Synthetase Machinery*", Org. Lett. **27**, 9553 (2025).

• P. Laohawutthichai, S.-Y. Kim, M. F. Chek, T. Jatuyosporn, A. Tassanakajon, K. Krusong*, and T. Hakoshima*(箱嶋敏雄), "*Structure of the C-terminal of Viral Responsive Protein 15 (VRP15): A Key Protein During White Spot Syndrome Virus (WSSV) Infection*", J. Mol. Biol. **437**, 169329 (2025).

◦ S. Li, J.-W. Huang, J. Min, H. Li, M. Ning, S. Zhou, Y. Yang*(楊鈺), C.-C. Chen*(陳純琪), and R.-T. Guo*(郭瑞庭), "*Molecular Insights into a Distinct Class of Terpenoid Cyclases*", Nat. Commun. **16**, 207 (2025).

• X. Li, J.-W. Huang, Z. Ning, S. Huang, C. Zeng, Z. Zeng, R. Ji, R. Peng, X. Liu, J. Min*(閔鑑), C.-C. Chen*(陳純琪), and R.-T. Guo*(郭瑞庭), "*Combined Approaches to Enhance the Pichia Pastoris-expressed PET Hydrolase*", Int. J. Biol. Macromol. **320**, 145862 (2025).

• K.-J. Liao*(廖冠儒)and Y.-J. Sun*(孫玉珠), "*Using AlphaFold and Symmetrical Docking to Predict Protein-protein Interactions for Exploring Potential Crystallization Conditions*", Proteins **93**, 1747 (2025).

• J. M. Lo, C.-C. Kung, T.-J. Rachel, C.-H. Wong*(翁啟惠), and C. Ma*(馬徹), "*Structure-based Mechanism and Specificity of Human Galactosyltransferase β3GalT5*", J. Am. Chem. Soc. **147**, 10875 (2025).

• M.-M. Reyna*, Y. Hosokawa, P.-H. Wang, M. Saft, N. Caramello, S. Engilberge, S. Franz-Badur, E. P. G. N. Putu, M. Nakamura, W.-J. Wu, H.-Y. Wu, C.-C. Lee, W.-C. Huang, K.-F. Huang, Y.-K. Chang, C.-H. Yang, M.-I. Fong, W.-T. Lin, K.-C. Yang, Y. Ban, T. Imura, A. Kazuoka, E. Tanida, S. Owada, Y. Joti, R. Tanaka, T. Tanaka, J. Kang, F. Luo, K. Tono, S. Kiontke, L. Korf, Y. Umena, T. Tosha, Y. Bessho, E. Nango, S. Iwata, A. Royant, M.-D. Tsai*(蔡明道), J. Yamamoto* (山元淳平), L.-O. Essen*, "*Capturing Structural Intermediates in an Animal-like Cryptochrome Photoreceptor by Time-resolved Crystallography*", Sci. Adv. **11**, eadu7247 (2025).

• Y.-H. Peng, M.-C. Li, W.-C. Yen, T.-K. Yeh, C.-C. Hsueh, F.-M. Kuo, Y.-L. Lai, Ling Chang, L.-C. Lee, P.-Y. Chen, K.-J. Yen, T.-Y. Chang, H.-Y. Sun, C.-Y. Chang, S.-H. Hsieh, C.-M. Yang, H.-P. Hsieh*(謝興邦), and S.-Y. Wu*(伍素瑩), "*Structure-based Design of Potent and Selective MerTK Inhibitors by Modulating the Conformation of αC Helix*", J. Med. Chem. **68**, 10877 (2025).

• P. Pitchayatanakorn, P. Putthasang, S. Chomngam, N. Jongkon, K. Choowongkomon, P. Kongsaeree, S. Fushinobu, and P. T. Kongsaeree*, "*Structure-based Engineering to Improve Thermostability of Acetivibrio thermocellus AtBgl1A β-glucosidase*", ACS Omega **10**, 27153 (2025).

• S. Pongnan, R. C. Robinson, O. Lampela, A. Juffer, T. Fukamizo*, and W. Suginta*, "*Structure and Loop Dynamics of a Chitooligosaccharide Deacetylase from the Marine Bacterium Vibrio Campbellii (Harveyi)*", J. Biol. Chem. **301**, 110608 (2025).

• P.-Y. Song, C.-E. Tsai, Y.-C. Chen, Y.-W. Huang, P.-P. Chen, T.-H. Wang, C.-Y. Hu, P.-Y. Chen, C. Ku, K.-C. Hsia, and S.-Y. Ting*(陳詩允), "*An Interbacterial Cysteine Protease Toxin Inhibits Cell Growth by Targeting Type II DNA Topoisomerases GyrB and ParE*", PLoS Biol. **23**, e3003208 (2025).

◦ P.-H. Wang, Y. Hosokawa, J. C. Soares, H.-J. Emmerich, V. Fuchs, N. Caramello, S. Engilberge, A. Bologna, C. J. Rosner, M. Nakamura, M. Watad, F. Luo, S. Owada, T. Tosha, J. Kang, K. Tono, Y. Bessho, E. Nango, A. J. Pierik, A. Royant, M.-D. Tsai, J. Yamamoto, M. Maestre-Reyna*, and L.-O. Essen*, "*Redox-state-dependent Structural Changes within a Prokaryotic 6-4 Photolyase*", J. Am. Chem. Soc. **147**, 16084 (2025).

• Q. Wang, Y. Yang*(楊鈺), B. He, J.-W. Huang, C.-J. Kuo*(郭致榮), C.-C. Chen*(陳純琪), and R.-T. Guo*(郭瑞庭), "*Structural Insight of a Bi-functional Isoprenyl Diphosphate Synthase Rv0562 from Mycobacterium Tuberculosis*", Int. J. Biol. Macromol. **318**, 145171 (2025).

• C.-S. Yang, M.-Y. Shie, S.-W. Huang, Y.-C. Wang, M.-H. Hou, C.-J. Chen* (陳朝榮), and Yeh Chen*(陳曄), "*Structural Insights into Signaling Promiscuity of the CBASS Anti-phage Defense System from a Radiation-resistant Bacterium*", Int. J. Biol. Macromol. **295**, 139534 (2025).

• Y. Yang*(楊雲雲), Y. Li, L. Yao, K. Dai, X. Fu, A. Ge, J.-W. Huang, R.-T. Guo* (郭瑞庭), and C.-C. Chen*(陳純琪), "*Structural Insights into the N-N Bond-formation Mechanism of the Heme-dependent Piperazate Synthase KtzT*", ACS Catalysis **15**, 1265 (2025).

• J. Zheng, J. Zhou, K. W. Y. Yung, Q. Hu, M. M. Lee*, and M. K. Chan*(陳文博), "*An Engineered Yeast Cytosine Deaminase with Improved Catalytic Activity and Stability for Macrophage-mediated Enzyme/Prodrug Therapy*", Commun. Biol. **8**, 1562 (2025).

TPS 07A Micro-focus Protein Crystallography

• T. Imura, Y. Hosokawa, K.-C. Yang, Y. Ban, H.-Y. Shih, J. Yamamoto*(山元淳平), and M. Maestre-Reyna*, "*Revisiting the Co-crystal Structure of a DNA Glycosylase with Photocaged Substrate: a Suitable Time-resolved Crystallography Target?*", IUCrJ **12**, 515 (2025).

• L.-N. Ko, G. Z. Lim, J.-C. Chen, T. Ko, G.-Y. Li, and C.-S. Yan*(楊啟伸), "*Rhodopsin from Haloquadratum Walsbyi is a Light-driven Magnesium Transporter*", Nat. Commun. **16**, 4472 (2025).

• Y.-T. Lai, C.-Y. Peng, H.-T. Liao, P.-Y. Hsiao, C.-K. Hsieh, Y.-R. Luo, S.-C. Huang, Y.-L. Wang, T. Ma, Y.-R. Chen, Y.-M. Kuo, Y.-C. Lin, John Chu, and C.-Y. Chang*(張晉源), "*Biosynthesis of Antituberculosis Antibiotic Capreomycin Involves a Trans-iterative Adenylation Domain within the Nonribosomal Peptide Synthetase Machinery*", Org. Lett. **27**, 9553 (2025).

◦ S. Li, J.-W. Huang, J. Min, H. Li, M. Ning, S. Zhou, Y. Yang*(楊鈺), C.-C. Chen* (陳純琪), and R.-T. Guo*(郭瑞庭), "*Molecular Insights into a Distinct Class of Terpenoid Cyclases*", Nat. Commun. **16**, 207 (2025).

• X. Li, J.-W. Huang, Z. Ning, S. Huang, C. Zeng, Z. Zeng, R. Ji, R. Peng, X. Liu, J. Min*(閔鑑), C.-C. Chen*(陳純琪), and R.-T. Guo*(郭瑞庭), "*Combined Approaches to Enhance the Pichia Pastoris-expressed PET Hydrolase*", Int. J. Biol. Macromol. **320**, 145862 (2025).

• J. M. Lo, C.-C. Kung, T.-J. Rachel, C.-H. Wong*(翁啟惠), and C. Ma*(馬徹),

"*Structure-based Mechanism and Specificity of Human Galactosyltransferase β3GalT5*", J. Am. Chem. Soc. **147**, 10875 (2025).

- M.-M. Reyna*, Y. Hosokawa, P.-H. Wang, M. Saft, N. Caramello, S. Engilberge, S. Franz-Badur, E. P. G. N. Putu, M. Nakamura, W.-J. Wu, H.-Y. Wu, C.-C. Lee, W.-C. Huang, K.-F. Huang, Y.-K. Chang, C.-H. Yang, M.-I. Fong, W.-T. Lin, K.-C. Yang, Y. Ban, T. Imura, A. Kazuoka, E. Tanida, S. Owada, Y. Joti, R. Tanaka, T. Tanaka, J. Kang, F. Luo, K. Tono, S. Kiontke, L. Korf, Y. Umena, T. Tosha, Y. Bessho, E. Nango, S. Iwata, A. Royant, M.-D. Tsai*(蔡明道), J. Yamamoto*(山元淳平), L.-O. Essen*, "*Capturing Structural Intermediates in an Animal-like Cryptochrome Photoreceptor by Time-resolved Crystallography*", Sci. Adv. **11**, eadu7247 (2025).
- H.-J. Wang, Y.-E. Kuan, M.-R. Ho*(何孟儒), and C.-I. Chang*(張崇毅), "*Structural Basis for the Allosteric Activation of Lon by the Heat Shock Protein LarA*", Nat. Commun. **16**, 2212 (2025).
- C.-S. Yang, M.-Y. Shie, S.-W. Huang, Y.-C. Wang, M.-H. Hou, C.-J. Chen*(陳朝榮), and Yeh Chen*(陳曄), "*Structural Insights into Signaling Promiscuity of the CBASS Anti-phage Defense System from a Radiation-resistant Bacterium*", Int. J. Biol. Macromol. **295**, 139534 (2025).
- Y.-H. Zhang, C.-L. Lin*(林佳良), and Menghsiao Meng*(孟孟孝), "*The Adaptable Binding Cleft of RmuAP1, a Pepsin-like Peptidase from Rhodotorula mucilaginosa, Enables the Enzyme to Degrade Immunogenic Peptides Derived from Gluten*", Biomolecules **15**, 1725 (2025).

TPS 09A Temporally Coherent X-ray Diffraction

- Y.-W. Chang, Y.-C. Liu, S.-W. Huang, J.-Y. Sun, S.-Z. Ho, W.-Y. Tzeng, C.-C. Chiu, Y.-C. Ku, P. Kaur, T. A. Butcher, C. Piamonteze, U. Staub, Y.-C. Chen, C.-F. Chang, C.-Y. Kuo, Y.-H. Chu, A. Kleibert, C.-W. Luo, and J.-C. Yang*(楊展其), "*Correlated Magnetic and Electrical Phenomena in Epitaxially Weaved Manganite Lateral Homostructures*", Small **21**, 2411424 (2025).
- S.-L. Chou, S.-Y. Lin, Y.-H. Wu, T.-P. Huang, M.-Y. Lin, Y.-Y. Lee, S.-C. Weng*(翁世璋), H.-F. Chen*(陳慧芬), and Y.-J. Wu*(吳宇中), "*A Novel Method for Synthesis of Graphene Oxide Thin-film Utilizing Vacuum UV Exposure*", Opt. Mater. **160**, 116697 (2025).
- A. Herlihy, W.-T. Chen, C. Ritter, Y.-C. Chuang, and M. S. Senn*, "*Interplay Between Jahn-Teller Distortions and Structural Phase Transitions in Ruddlesden-Poppers*", J. Am. Chem. Soc. **147**, 7209 (2025).
- Y.-C. Hsu, W.-C. Shih, Y.-C. Shen, L. Lee, C.-T. Chen, T.-Y. Yang, Y.-J. Yu, C.-Y. Chiang, S.-J. Chiu, and Y.-L. Chueh*(闕郁倫), "*Controllable CVD Growth of Monolayered WS_2 From Triangular Flakes toward Wafer-scale Thin Film by Precise Design of Growth Environment*", Adv. Mater. Technol. **10**, e00292 (2025).
- G.-L. Huang, K.-Y. Ting, N. Narayanam, D.-R. Wu, T.-E. Hsieh, K.-C. Tsai, D.-W. Yang, Q.-X. Tang, B.-K. Su, Y.-T. Kang, S.-J. Huang, C.-H. Chen, Y.-P. Chang, L.-S. Yang, Y.-C. Chao, E. Y.-T. Li*(李祐慈), and Y.-H. Liu*(劉沂欣), "*Unexpected Magnetic Moments in Manganese-doped $(CdSe)_{13}$ Nanoclusters: Role of Ligands*", Angew. Chem. Int. Edit. **64**, e202420257 (2025).
- C.-Y. Lin*(林哲儀), B.-C. Chen, Y.-C. Liu, S.-F. Kuo, H.-C. Tsai, Y.-M. Chang*(張原銘), C.-Y. Kuo, C.-F. Chang, J.-H. Chen, Y.-H. Chu, M. Yamamoto, C.-H. Shen, Y.-L. Chueh, P.-W. Chiu, Y.-C. Chen, J.-C. Yang*(楊展其), and Y.-F. Lin*(林彥甫), "*Integration of Freestanding Hafnium Zirconium Oxide Membranes into Two-dimensional Transistors as a High-κ Ferroelectric Dielectric*", Nat. Electron. **8**, 560 (2025).
- P. C. Loni, B. Liang*(梁碧清), C.-Y. Chiang, Y.-C. Lee, J. Rathod, C.-H. Ciou, P.-H. Wu, and W.-H. Chen, "*Enhanced Removal of Antimony, Arsenic and Cadmium by Bone Char in Co-contaminated Aqueous Systems: A Lattice Level Mechanistic Understanding*", J. Environ. Chem. Eng. **13**, 117281 (2025).
- A. K. Singh*, S. Yang, U. Kar, G.-R. Chen, S.-C. Weng, C.-H. Hsu*(徐嘉鴻), and W.-L. Lee*(李偉立), "*Evolution of the Structural Phase and Orientation in Ultrathin $SrRuO_3$ Film with $SrTiO_3$ Capping Layer*", Sci. Rep. **15**, 17841 (2025).
- V. Sridhar, C.-T. Wu, and S. Chattopadhyay*(薛特), "*Harnessing Photothermal Synergy of $Cs_4CuSb_2Cl_{13}/MoS_2$ Composite for Photothermoelectric Energy Harvesting and Small Power Application*", ACS Appl. Mater. Interfaces **17**, 39584 (2025).
- C.-Y. Teng, C.-W. Hsu, C.-H. Chang, J.-L. Yang, B.-H. Lin, M.-T. Tang, and Y.-C. Tseng*(曾院介), "*Oxygen Migration Impact on Ferroelectric Evolution in $Hf_{0.5}Zr_{0.5}O_2$ Devices*", Appl. Phys. Lett. **126**, 193502 (2025).
- C.-H. Yeh, W.-Y. Cheng, T.-C. Chou, Y.-C. Liu, C.-W. Chang, Y.-S. Chen, C.-H. Wang, S.-C. Weng, I. D. Sharp*, P.-T. Chou, and C.-M. Jiang*(姜昌明), "*Collective Motion of Methylammonium Cations Affects Phase Transitions and Self-trapped Exciton Emission in A-site Engineered $MAPbI_3$ Films*", Nanoscale Adv. **7**, 5580 (2025).

TPS 13A Biological Small-angle X-ray Scattering

- C.-T. Chang, C.-W. Chang, J.-H. Ciou, K.-C. Kuo, J. Lin, C.-T. Wu, M.-L. Li, Y.-H. Tseng, Y.-L. Lin, C.-T. Lin, and J.-T. Chen*(陳俊太), "*Transforming Plastic Waste into Strain Sensors: Multifunctional Upcycled TPEE Elastomers with MXene Multilayer Assemblies*", Adv. Mater. Technol. **10**, e00652 (2025).
- C.-Y. Chang, G.-M. Manesi, Y.-H. Chen, Y.-J. Tsai, H.-Y. Su, A. Avgeropoulos*, and R.-M. Ho*(何榮銘), "*Architecture Effect on Network Phase Formation from Controlled Self-assembly of High-χ Block Copolymers*", Macromolecules **58**, 12574 (2025).
- Y.-C. Chang, T.-Y. Chen, Y.-M. Sun, and S.-H. Hsu*(徐善慧), "*Soft, Deformable Polyurethane-boronic Acid Nanoparticles as Dynamic Cross-linkers to Construct 3D-bioprintable Hydrogels*", ACS Appl. Mater. Interfaces **17**, 43565 (2025).
- N. C.-R. Chen, P.-C. Han, L.-H. Yeh*(葉禮賢), Y.-H. Peng, C.-A. Lung, Y. Yamauchi, and K. C.-W. Wu*(吳嘉文), "*A Full Sub-2 nm and Acid-resistant MOF-COF Ionic Diode Membrane for Efficient Ionic Gradient Power Generation*", Chem. Eng. J. **525**, 170303 (2025).
- Y.-H. Cheng, T.-W. Chang, T. Nishimura, Y.-C. Lai, C.-J. Su, J. Wang, T. Isono*(磯野拓也), T. Satoh*(佐藤敏文), and H.-L. Chen*(陳信龍), "*Accessing Frank-Kasper Phases via Blending of Architecturally Distinct and Sustainable Sugar-based Block Co-oligomers*", Macromolecules **58**, 8686 (2025).
- C.-C. Chiang, Y.-J. Lu, J.-W. Liu, S.-W. Lin, C.-C. Chou, C.-H. Lin, I.-W. Chien, and C.-H. Hsu*(徐駿森), "*Structural Insights into 4,5-DOPA Extradiol Dioxygenase from Beta Vulgaris: Unraveling the Key Step in Versatile Betalain Biosynthesis*", J. Agr. Food Chem. **73**, 6785 (2025).
- C.-C. Cho, H.-H. Huang, B.-C. Jiang, W.-Z. Yang, Y.-N. Chen, and H. S. Yuan*(袁小琦), "*Histone Modification-driven Structural Remodeling Unleashes DNMT3B in DNA Methylation*", Sci. Adv. **11**, eadu8116 (2025).
- Y.-C. Chuang, J.-W. Su, Y.-C. Sung, J.-C. Tsai*(蔡敬誠), J.-W. Huang, S.-W. Shao, and R.-M. Ho*(何榮銘), "*Synthesis and Self-assembly of a Diblock Copolymer Consisting of a Cyclic Olefin Copolymer and Polycaprolactone*", Polym. Chem. **16**, 2162 (2025).
- P. Chung, Y.-S. Sun*(孫亞賢), B.-C. Zhao, and C.-L. Liu, "*Methylammonium Lead Halide Nanocubes Templated by Block Copolymer Colloids*", Mater. Today Chem. **44**, 102577 (2025).
- C.-Y. Ho, Y.-J. Chang, C.-W. Yang, O. Shih, U.-S. Jeng, I.-S. Hwang, W.-C. Huang, and Y.-R. Chen*(陳韻如), "*Membrane Disruption Properties of PolyGlycine Arginine Dipeptide Repeats Affected by Peptide Repeats Continuity and Membrane Composition*", J. Mol. Biol. **437**, 169296 (2025).
- T.-Y. Hsieh, B. W. Mansel*, H.-L. Chen, and Y.-F. Chen*(陳儀帆), "*Drastic Elevation in the Glass Transition Temperature of Poly(2-vinylpyridine) by the Entanglement-promoting Palladium Nanoparticles*", Macromolecules **58**, 2336 (2025).
- U.-S. Jeng*(鄭有舜), J. Ilavsky*, E. P. Gilbert*, W.-T. Chuang*(莊偉綜), and O. Shih*(施怡之), "*Introduction to the Special Issue Related to the 19th International Small Angle Scattering Conference (SAS2024)*", J. Appl. Crystallogr. **58**, 1513 (2025).
- Y.-S. Jheng, L.-C. Lee, S.-H. Hong, C.-C. Hsu, Q.-B. Zheng, C.-H. Wang, U.-S. Jeng, S.-H. Tung, and C.-L. Liu*(劉振良), "*Sustainable and Recyclable Ionogels for Ionic Thermoelectric Supercapacitor Application*", J. Mater. Chem. A **13**, 10655 (2025).
- Y.-S. Jheng, C.-C. Hsu, S.-H. Hong, C.-W. Hsu, S.-W. Kuo, C.-H. Wang, U.-S. Jeng, S.-H. Tung, and C.-L. Liu*(劉振良), "*Impact of Halide Anions on Ionic Transport and Thermoelectric Properties of Polyvinyl Alcohol-based Eutectogel*", Mater. Today Energy **54**, 102105 (2025).
- J.-J. Kang, Z.-C. Huang, L.-W. Tang, C.-J. Su, H.-D. Gao, H.-M. Lee*(李賢明), and U.-S. Jeng*(鄭有舜), "*Changes of the Lipid Membrane Structures Caused by Chain-length-dependent Doxorubicin Embedment in PEGylated Liposomes*", J. Appl. Crystallogr. **58**, 897 (2025).
- S.-T. Kao, C.-C. Hsu, S.-H. Hong, U.-S. Jeng, C.-H. Wang, S.-H. Tung, and C.-L. Liu*(劉振良), "*Host-guest Complexation of α-cyclodextrin and Triiodide Ions for Enhanced Performance of Ionic Thermoelectric Capacitors*", Adv. Energy Mater. **15**, 2405502 (2025).
- C.-Y. Lee, C.-C. Hsu, C.-H. Wang, U.-S. Jeng, S.-H. Tung, C.-C. Hu, and C.-L. Liu*(劉振良), "*Exploring Pyrazine-based Organic Redox Couples for Enhanced Thermoelectric Performance in Wearable Energy Harvesters*", Small **21**, 2407622 (2025).
- A.-S. Lin, S. K. Siddique, Y.-T. Xie, C.-C. Lee, H. Sadek*, and R.-M. Ho*(何榮銘), "*Well-ordered Nanonetwork Invar from Templated Electrochemical Deposition as Mechanical Metamaterials*", Small **21**, 2502361 (2025).
- H.-Y. Lin, H.-C. Lu, C.-H. Tsai, H.-J. Liu, P.-W. Chung, W.-T. Chuang*(莊偉綜), and C.-L. Wang*(王建隆), "*The Roles of Molecular Concavities in the Hierarchical Self-assembly of Giant Tetrahedra for CO_2 Uptake*", Chem.-Eur. J. **31**, e202403348 (2025).
- L.-C. Lee, S.-H. Hong, M.-S. Kim, U.-S. Jeng, C.-H. Wang, S.-H. Tung, K. H. Lee, and C.-L. Liu*(劉振良), "*Enhanced Thermoelectric Performance of PVA-based Ionogels: Tailoring Crystallinity via Additives for Advanced Waste Heat Recovery*", ACS Appl. Mater. Interfaces **17**, 38545 (2025).

- S. Prusty, H.-K. Hsu, M. Madasu, A. Rani, J.-H. Fu, L.-T. Lin, M.-H. Lee, M.-W. Chu, C.-H. Kuo, and Y.-T. Chan*(詹益慈), "*Harnessing Dynamic Heteroleptic Complexation for Self-assembly of Robust Nested Metallo-supramolecular Cages*", J. Am. Chem. Soc. **147**, 33914 (2025).
- O. Shih, Y.-C. Feng, S. Agrawal, K.-F. Liao, Y.-Q. Yeh, J.-W. Chang, T.-Y. Yu* (余慈顏), and U.-S. Jeng*(鄭有舜), "*Differentiating the Solution Structures and Stability of Transthyretin Tetramer Complexed with Tolcapone and Tafamidis Using SEC-SWAXS and NMR*", J. Appl. Crystallogr. **58**, 1373 (2025).
- K. Shirasaki, Y. Zhao*(趙英吉), N. C.-R. Chen, X. Liu, Y. Asakura, K. C.-W. Wu, and Y. Yamauchi*, "*Gradient Mesoporosity in Gierarchical ZIF-8 by Temperature-modulated Soft-templating*", Chem. Sci. **16**, 22742 (2025).
- Y.-J. Shiu, B. W. Mansel, K.-F. Liao, T.-W. Hsu, J.-W. Chang, O. Shih, Y.-Q. Yeh, J. Allwang, and U.-S. Jeng*(鄭有舜), "*Revealing the Solution Conformation and Hydration Structure of Type I Tropocollagen Using X-ray Scattering and Molecular Dynamics Simulation*", Biomacromolecules **26**, 449 (2025).
- Y.-S. Sun*(孫亞賢), B.-C. Zhao, O. Shih, C.-Y. Chen, C.-J. Su, and J.-M. Lin, "*Tunable Formation of Two-dimensional Nanostructures and Complex Crystals via Lead(II) Bromide Complexation and Inclusion Crystallization with Polystyrene-block-poly (Ethylene oxide) in 1,3,5-trimethylbenzene*", Nanoscale **17**, 24208 (2025).
- Y.-S. Sun*(孫亞賢), B.-C. Zhao, C.-C. Yang, O. Shih, C.-Y. Chen, C.-J. Su, and J.-M. Lin, "*Hybrid Hairy Two-dimensional Nanostructures with Tunable Morphologies by Inclusion Crystallization of Lead Bromide Complexes with Polystyrene-block-poly(Ethylene oxide)*", Langmuir **41**, 31780 (2025).
- S.-Y. Tsai, W.-T. Tseng, J.-H. Su, Y.-H. Wang, Y.-W. Chang, C.-H. Wang, U.-S. Jeng, K.-Y. Wu*(吳冠毅), C.-L. Wang*(王建隆), and W.-T. Chuang*(莊偉綜), "*Optimal st-PMMA/C_{60} Helical Inclusion Complexes via Tunable Energy Landscapes for the Application of an Ag SERS-active Substrate*", J. Appl. Crystallogr. **58**, 553 (2025).
- C.-C. Tseng, L.-L. Yeh, C.-Y. Chang, C.-L. Huang, C.-L. Tsai, Y.-J. Xue, F.-C. Chen, C.-S. Hsu, T.-Y. Chu, J. Lu, U.-S. Jeng*(鄭有舜), and Y.-J. Cheng* (鄭彥如), "*A C_6F_5-functionalized Benzimidazole Acceptor Enabling Supramolecular Fluorinated Interactions for Enhanced Photovoltaic Performance and Thermal Stability*", J. Mater. Chem. A **13**, 20519 (2025).
- S. Ubonprasert, W. Wachiradusit, W. Pornthanakasem, W. Songsungthong, A. Jaruwat, S. Premjaichon, T. Uengwetwanit, R. Suntivich, K. Thananon, K. Suksomjaisaman, J. Sucharitakul, C. Puyprom, T. Lotangchanintra, K. Salamteh, K. Wangkanont, C. Rodkhum, W. Visessanguan, P. Chaiyen, P. Chitnumsub*, and U. Leartsakulpanich*, "*PlyCYU endolysin targeting Streptococcus agalactiae exhibits a CHAP activity and a glucosaminidase domain mediating multimerization*", Appl. Environ. Microbiol. **91**, 01872-24 (2025).
- C.-L. Wang*(王建隆), W.-T. Chuang*(莊偉綜), M.-T. Lee, Y.-R. Wang, S.-Y. Chen, H.-J. Huang, S.-Y. Liu, J.-M. Lin, C.-Y. Chen, Y.-C. Lee, and U.-S. Jeng, "*Deactivating Symmetry Breaking of a Soft Frank-Kasper Phase via Water-induced Conformational Ordering of a Shapeshifting Dendritic Amphiphile*", ACS Appl. Mater. Interfaces **17**, 31403 (2025).
- Y.-H. Wang, C.-C. Hsu, S.-H. Hong, J.-F. Ding, U.-S. Jeng, D.-Y. Kang, S.-C. Luo, S.-H. Tung, and C.-L. Liu*(劉振良), "*A Dual-function Poly(Vinyl Alcohol) Hydrogel for Solar Water Production and Thermoelectric Energy Generation*", ACS Sustain. Chem. Eng. **13**, 4231 (2025).
- K.-C. Wu, J.-W. Chang, Y.-C. Chen, Y.-D. Chen, J.-C. Lin, Y.-H. Lai, C.-J. Su* (蘇群仁), and D.-Y. Wang*(王迪彥), "*Unveiling the Mysterious Structure Growth of 2D and 3D All-inorganic Perovskite Nanocrystals in Solution Phase Dynamically by Using Small-wide Angle X-ray Scattering Spectroscopy*", Small Methods **9**, 2500065 (2025).
- Y. Xiang, A. G. AboElsood, W.-T. Chuang, Y.-C. Hung, and Y.-W. Chiang* (蔣酉旺), "*Engineering Precursor Localization via Solvency for Simultaneously Metallizing and Hollowing Bicontinuous Gyroid Structures*", Small **21**, 2505516 (2025).
- Y.-J. Xue, C.-Y. Chang, C.-M. Hung, C.-C. Tseng, J.-W. Chang, C.-J. Su, C.-L. Tsai, H.-C. Lu, K.-H. Huang, K.-Y. Tai, C.-Y. Ku, C.-S. Wu, S.-Y. Chien, S.-D. Yang, B.-H. Jiang, C.-P. Chen, P.-T. Chou*(周必泰), U.-S. Jeng*(鄭有舜), and Y.-J. Cheng*(鄭彥如), "*Side-chains Engineered Self-assembly of Ortho-benzodipyrrole-based Acceptors: Comprehensive Exploration of Structure-interface-photovoltaics Correlations*", Adv. Funct. Mater. **35**, e04705 (2025).
- C.-H. Yang, Y. Wei, C.-Y. Tsao, and C.-C. Hua*(華繼中), "*Revisiting the Solution Properties of Sodium Alginate in Aqueous Media*", Soft Matter **21**, 7393 (2025).
- K.-R. Yang, Q.-P. Cheng, and S.-H. Hsu*(徐善慧), "*A Biocompatible and Self-healable 3D-printed Bidirectional Hydrogel Actuator with Needle Injectability*", ACS Appl. Mater. Interfaces **17**, 58709 (2025).
- M.-C. Yu*(余美靜), X.-D. Huang, C.-W. Kuo, K.-F. Zhang, P.-C. Liang, U.-S. Jeng, P.-Y. Huang, F. W. K. Tam, and Y.-C. Lee*(李耀昌), "*Developing a Label-free Infrared Spectroscopic Analysis with Chemometrics and Computational Enhancement for Assessing Lupus Nephritis Activity*", Biosensors-Basel **15**, 39 (2025).
- Y.-T. Yuan, T.-C. Guo, C.-Y. Wu, Y.-Q. Yeh, C.-T. Wu, S.-Y. Hsu, Z.-W. Weng, M.-R. Ho, S.-T. D. Hsu, Y.-C. Chen, C.-R. Chang, K.-P. Wu*(吳昆峯), U.-S. Jeng*(鄭有舜), and S.-C. Sue*(蘇士哲), "*Filamentous Chemokine CCL5 Structure and the Functional Aspects*", Sci. Rep. **15**, 13552 (2025).

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- S. S. S. Ali, S. A. Khan, Y.-T. Tsai, C.-H. Lee, Y.-F. Song, G.-C. Yin, C.-K. Chang, Y.-C. Chuang, S.-J. Huang, C.-W. Pao, T.-Y. Chen, and M.-H. Fang*(方牧懷), "*Supersaturation-driven Co-precipitation Enables Scalable Wet-chemical Synthesis of High-purity Na_3InCl_6 Solid Electrolyte for Sodium-ion Batteries*", Small **21**, e09165 (2025).
- B.-H. Chen, S. Jena, Y.-J. Chuang, H.-Y. Lin, C.-H. Li, J. M. Wu, and M. H. Huang*(黃暄益), "*$SrTiO_3$ Cubes and Truncated Rhombic Dodecahedra Exhibiting Large Lattice and Piezoelectric Variations*", J. Phys. Chem. Lett. **16**, 4921 (2025).
- B.-W. Chen, B.-H. Chen, P.-Y. Yang, S. Jena, S.-J. Yang, Y.-J. Hsu, and M. H. Huang*(黃暄益), "*Size-tunable $BaZrO_3$ Cubes and Rhombic Dodecahedra Exhibiting Facet-dependent Optical, Photocatalytic, and Piezocatalytic Behaviors*", Chem.-Asian J. **21**, e70364 (2025).
- Y.-Y. Chen, Y.-C. Chen, H.-C. Tsai, and Y.-Y. Lai*(賴育英), "*Synthesis, Properties, and Photocatalytic Hydrogen Evolution of Isoindigo-based Conjugated Molecules*", J. Mater. Chem. A **13**, 41242 (2025).
- Y.-J. Chuang, A. Pal, B.-H. Chen, S. Jena, S. Suresh, Z.-H. Lin*(林宗宏), and M. H. Huang*(黃暄益), "*Synthesis of Shape-tunable $PbZrTiO_3$ Nanocrystals with Lattice Variations for Piezoelectric Energy Harvesting and Human Motion Detection*", Chem. Sci. **16**, 3285 (2025).
- Y.-C. Chung, H.-F. Chang, Y.-H. Hou, C.-C. Wang*(王志傑), S.-I. Lu*(呂世伊), G.-H. Lee, S.-Y. Chien, B.-H. Chen, and Y.-C. Chuang*(莊裕鈞), "*Two Isoreticular 2D Zn(II) Coordination Polymers (CPs) Based on a Flexible Tripodal Thioether-based Pyridyl Ligand and Two V-shaped Dicarboxylate Ligands: Structural Characterization, CO_2 Uptakes, and Water Ad-/Desorption Isotherms*", Cryst. Growth Des. **25**, 7953 (2025).
- M. Y. Fakhri, W.-C. Lai, B. Jarwal, W.-Z. Hsieh, Y.-H. Tseng, T.-T. Ho, K. S. Bayikadi, S. M. Valiyaveettil, P. Ganesan, C.-Y. Chiang, L.-C. Chen*(林麗瓊), and K.-H. Chen*(陳貴賢), "*Enhanced low-temperature Thermoelectric Properties in Textured Polycrystalline SnS Co-doped with Na and Ag*", J. Alloy. Compd. **1018**, 179124 (2025).
- A. T. Fenta, Y. Nikodimos, S. K. Merso, A. Meniber, M. A. Weret, K. N. Shitaw, B. W. Taklu, F. Valencia, T.-I. Yeh, C. L. Hsieh, C.-Y. Chang, Y.-J. Liu, C. Y. Chen, H.-H. Su, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Boosting Anode Interfacial Stability in All-solid-state Lithium Hybrid Batteries with MCMB-modified Stainless Steel Current Collector*", Chem. Eng. J. **510**, 161439 (2025).
- P. Ganesan*, C. S. Gantepogu, S. Duraisamy, P. Wu, G.-T. Huang, M. Y. Fakhri, K.-H. Chen, Y.-Y. Chen, and M.-K. Wu*(吳茂昆), "*Maximizing Thermoelectric Performance in SnTe Through Strategic Co-doping, Nanostructuring, and Topological Insights*", J. Mater. Chem. A **13**, 8559 (2025).
- S. Ghosh, C.-W. Li, C.-E. Hsu, Y.-H. Liang, W.-X. Lin, K.-H. Chen, H.-T. Wang, C.-H. Du, J.-W. Chiou*(邱昭文), H.-M. Tsai, J.-L. Chen, C.-W. Pao, C.-M. Cheng, C.-N. Kuo, C.-S. Lue, S. C. Ray, H.-C. Hsueh*(薛宏中), and W.-F. Pong*(彭維鋒), "*Structural Instability and Charge Transfer Mediated Transition in $Pr_3Co_4Sn_{13}$: A Synchrotron Radiation Based Scattering and Spectroscopic Study*", Phys. Rev. B **111**, 165119 (2025).
- A. G. Hailemariam, M. Qorbani*, T. T. Mamo, R. Putikam, C.-Y. Huang, K. S. Bayikadi, H.-L. Wu*(吳恆良), M.-C. Lin, L.-C. Chen*(林麗瓊), and K.-H. Chen*(陳貴賢), "*Improved Electrochemical Kinetics and Rate Performance of Lithium-ion Batteries by $Li_2FeS_{2-x}F_x$ Cathode Materials*", Commun. Mater. **6**, 143 (2025).
- T.-E. Ho, Y.-C. Chang, P.-E. Wang, S.-Y. Yuan, L.-M. Lyu, C.-S. Li, J.-L. Chen, and C.-H. Kuo*(郭俊宏), "*Boosting H_2 Evolution from Thermal NH_3 Decomposition by the Catalyst of Ru Quantum Dots on Mesoporous MgO Dendrite Networks*", ACS Sustain. Chem. Eng. **13**, 10563 (2025).
- C.-Y. Hsu, N. Kostoglou*, C. Mitterer, C. Rebholz, C.-K. Chang, Y.-C. Chuang, and C.-Y. Wang*(王誠佑), "*Enhanced Dehydrogenation and Regeneration Behavior of $LiBH_4$-$LiAlH_4$-$MgCl_2$ in Nanoporous Carbons*", Int. J. Hydrogen Energ. **106**, 712 (2025).
- J.-K. Hu, Y.-J. Lee, C.-C. Wu, C.-H. Lee, C.-M. Wu, H.-C. Wu, K. Nawa, K. Kinjo, T. J. Sato, and P.-C. Wei*(魏百駿), "*Dual Crystal-liquid Thermal Transport Behavior in $MAPbCl_3$*", Small **21**, 2408773 (2025).
- T.-H. Hu, C.-Y. Wu, Z. Y. He, Y. Chen, L.-C. Hsu, C.-W. Pao, J.-T. Lin, C.-W. Chang, S.-C. Lin, R. Osmundsen, L. Casalena, K. H. Lin, S. Zhou, and T.-H. Yang*(楊東翰), "*Unconventional Hexagonal Close-packed High-entropy Alloy Surfaces Synergistically Accelerate Alkaline Hydrogen Evolution*", Adv. Sci.

12, 2409023 (2025).
- S. Jena, B.-H. Chen, H.-Y. Lin, V. Meena, W.-F. Chang, J. M. Wu, and M. H. Huang*(黃暄益), "*$ZnSn(OH)_6$ Nanocubes and Octahedra Displaying Facet-dependent Behaviors for Use in Piezocatalysis*", ACS Appl. Nano Mater. , (2025).
- D. C. Kakarla*, A. Tiwari, Y. H. Tseng, T. W. Yen, H. C. Wu, C. W. Wang, M.-J. Hsieh, J.-Y. Lin, A. Pal, C. Dhanasekhar, D. P. Gulo, H. L. Liu, and H. D. Yang* (楊弘敦), "*Spin-reorientation Induced Hidden Electric Polarization in the Noncentrosymmetric Berlinite Magnetic Oxide α-$FePO_4$*", Phys. Rev. B **111**, 214418 (2025).
- C.-H. Lee*(李其紘), C.-Y. Lin, and G.-Y. Chen, "*Uniaxial Zero Thermal Expansion in Low-cost Mn_2OBO_3 from 3.5 to 1250 K*", Mater. Today Phys. **51**, 101650 (2025).
- K.-Y. Lee, H.-K. Yang, T. Lesńiewski, M. Kamiński, N. Majewska, J. Gnyp, W.-L. Su, Y.-T. Tsai, S. Mahlik*, and M.-H. Fang*(方牧懷), "*Understanding the Limitations of Chloride Double Perovskites as Hosts for Stable Cr^{3+} Luminescence*", Inorg. Chem. **64**, 15184 (2025).
- G. Li, C. Foo, R. Fan, M. Zheng, Q. Wang, Y. Chu, J. Li, S. Day, P. Steadman, C. Tang, T. W. B. Lo*(勞子恒), F. Deng*(鄧鳳), and S. C. E. Tsang*(曾適之), "*Atomic Locations and Adsorbate Interactions of Al Single and Pair Sites in H-ZSM-5 Zeolite*", Science **387**, 388 (2025).
- Y. K. Lin, A. Tiwari, C. W. Wang, J.-Y. Lin, M.-J. Hsieh, T. W. Yen, Y. C. Chuang, Y. C. Lai, A. Pal, H. D. Yang*(楊弘敦), and D. C. Kakarla*, "*Interplay of S=5/2 Spin-tetramer Cluster Magnetism and Magnetodielectric Effect in Polar $Ba_6Nd_2Fe_4O_{15}$*", Phys. Rev. Mater. **9**, 114407 (2025).
- Z.-H. Lin and Y.-C. Wu*(吳毓純), "*Capping Stabilization Mechanism of Vanadate-stabilized δ-Bi_2O_3: Experimental and Theoretical Approaches*", Prog. Solid State Ch. **80**, 100549 (2025).
- Y.-H. H. Lu, I.-L. Jen, C.-Y. Chiang, W.-Z. Hsieh, G.-C. Yin, Y.-F. Song, and H.-J. Wu*(吳欣潔), "*Modulating Solid-solution Solubility to Enhance Thermoelectric Performance and Maintain Structural Stability in Phase-transition Silver Chalcogenides*", Small **21**, 2401583 (2025).
- J. Luo, G.-H. Lee, S. Kang, J. Zhang*(張吉亮), C.-L. Chen, C.-K. Chang, Z.-Y. Li, R. Zeng, H. Li, J. Li, R. Zhao*(趙瑞瑞), Q. Zheng, and Y.-M. Kang*, "*Mitigating Chemo-mechanical Heterogeneity of Ni-rich Layered Cathodes Through the Regulated Medium-range Order by Doping*", Energ. Environ. Sci. **18**, 4753 (2025).
- L.-M. Lyu, Y.-C. Chang, H.-J. Li, P.-E. Wang, R.-H. Juang, M.-Y. Lu, C.-S. Li, and C.-H. Kuo*(郭俊宏), "*Turning the Surface Electronic Effect Over Core-shell CoS_2-$Fe_xCo_{1-x}S_2$ Nanooctahedra Toward Electrochemical Water Splitting in the Alkaline Medium*", Adv. Sci. **12**, 2411622 (2025).
- C. Ma, Z. Zhang, M. Zhang, X. Tian, C. Lin*(林聰), L. Han, G. Li, B. T. W. Lo, K.-F. Yung, H. Song, W. Lin*(林偉), M. A. Camblor, L. Xu, and J. Li* (李劍), "*Accelerated Discovery of Stable, Extra-large-pore Nano Zeolites with Micro-electron Diffraction*", Science **388**, 1417 (2025).
- A. M. G. Muchlis, C.-L. Jiang, Z.-Y. Lin, H.-D. Nguyen, W. B. Im*, and C. C. Lin*(林群哲), "*Simultaneous Encapsulation and Structural Behavior of High-utility $CsPbX_3$ Quantum Dots in 3D Dendritic Mesoporous Silica Nanospheres*", Mater. Today Adv. **26**, 100593 (2025).
- G. Y. Nigussie, Y.-F. Tsai, T.-C. Yang, C.-M. Yang*(楊家銘), and S. S.-F. Yu* (俞聖法), "*An Efficient H_2O_2-based Propylene to Propylene Oxide (HPPO) Reaction Catalyzed by ZnO/ZnO_2 Materials*", J. Mater. Chem. A **13**, 5261 (2025).
- J. A. S. Oh, Z. Yu, C.-J. Huang, P. Ridley, A. Liu, T. Zhang, B. J. Hwang, K. J. Griffith*, S. P. Ong*, and Y. S. Meng*(孟穎), "*Metastable Sodium Closo-hydridoborates for All-solid-state Batteries with Thick Cathodes*", Joule **9**, 102130 (2025).
- A. Pal*, C. W. Wang, T. W. Yen, G. R. Blake, S. S. Ali, S. K. Panda, S. Kamba, Y. H. Chang, H. S. Kunwar, Y. C. Lai, Y. C. Chuang, V. Sathe, G. S. Murugan, R. Sankar, S. Giri*, and H. D. Yang*(楊弘敦), "*Field-driven Linear Magnetoelectric Coupling and Entangled Spin-phonon Behavior in the Antiferromagnetic Spin-chain Compound $MnSb_2O_4$*", Phys. Rev. B **111**, 174453 (2025).
- S. K. Sapra, J.-K. Chang, and R. S. Dhaka*, "*Unraveling the Storage Mechanism of $Na_3V_{2-x}Ni_x(PO_4)_2F_3$/C Cathodes for Sodium-ion Batteries Through Electrochemical, Operando X-ray Diffraction and Microscopy Studies*", Energy Storage Mater. **81**, 104478 (2025).
- W.-T. Shiu, H.-Y. Wang, J.-C. Li, C. Lee, J. N. Bentley, Y. Liu, L.-Y. Chang, P. J. Ragogna*, and L. Liu*(劉儷佳), "*The Influence of Surface Hydroxylation Media on the Luminescence and Electronic Structure of Cr^{3+}-doped Zinc Gallate Nanoparticles*", J. Phys. Chem. C **129**, 17676 (2025).
- B. Talukdar, C.-C. Chang, H.-Y. Chen, R.-H. Juang, Y.-C. Chang, C.-S. Li, and C.-H. Kuo*(郭俊宏), "*Turning gas/Liquid Product Selectivity in Electrochemical CO_2 Reduction Reaction by Modulating CuPd Nanocages*", Mater. Chem. Phys. **344**, 131191 (2025).
- T. H. Vu, L. N. Phan, X.-F. Luo, A. Arya, T. Nguyen, J.-K. Chang, and Y.-S. Su* (蘇育陞), "*Exploring Mismatched Na^+ and Li^+ Electrolytes for $Li_4Ti_5O_{12}$ Spinel Anodes in Li-ion and Na-ion Batteries*", Small Struct. **6**, 2400623 (2025).
- C.-Y. Wu, C.-E. Huang, A.-C. Luo, W.-H. Lu, S.-C. Huang, Y.-M. Huang, V. K. Peterson, H.-Y. Liu, C.-L. Chen, Y.-R. Lu, T.-Y. Chen, C.-Z. Lu*(陸成章), W. K. Pang*, and H.-Y. Chen*(陳翰儀), "*Enabling High-performance and High-ratecapability $Na_4MnV(PO_4)_3$ Sodium-ion Battery Cathodes Through Tuning the NASICON Framework*", J. Mater. Chem. A **13**, 2716 (2025).
- D.-Z. Wu, W.-C. Hsu, C.-H. Chung, H.-Y. Hsieh, W.-M. Chen, F.-Y. Wu, Y.-H. Su, H.-E. Lin, M.-K. Wu, Phillip M. Wu*(吳孟真), Y.-C. Chiu*(邱昱誠), and P.-W. Chi*(紀柏葦), "*Mitigating Interfacial Reactions in $Li_4Ti_5O_{12}$ Anodes Through Carbon Shells Synthesized by Spray Granulation*", RSC Adv. **15**, 11881 (2025).
- K.-C. Wu, J.-W. Chang, Y.-C. Chen, Y.-D. Chen, J.-C. Lin, Y.-H. Lai, C.-J. Su* (蘇群仁), and D.-Y. Wang*(王迪彥), "*Unveiling the Mysterious Structure Growth of 2D and 3D All-inorganic Perovskite Nanocrystals in Solution Phase Dynamically by Using Small-wide Angle X-ray Scattering Spectroscopy*", Small Methods **9**, 2500065 (2025).
- W.-Y. Wu, Y.-S. Lin, L. Iffland, U. Apfel, T.-T. Lu, and W.-F. Liaw*(廖文峰), "*Receptor-mediated and Hydrolytic Denitrosylation of Dinitrosyl Iron Complexes to Yield Amorphous Fe_xO_y and Its Photoinduced Transformation into Crystalline Fe@Fe_xO_y Nanoparticles*", Inorg. Chem. **64**, 12708 (2025).
- J.-H. Yang, C.-P. Wang, B.-H. Chen, and M. H. Huang*(黃暄益), "*Growth of Fe_3O_4 Truncated Cubes and Rhombic Dodecahedra Showing Interior Lattice and Magnetic Behavior Variations*", Inorg. Chem. **64**, 8659 (2025).
- Y.-T. Yang, B.-H. Chen, Arnab Pal, C.-H. Li, Z.-H. Lin, and Michael H. Huang* (黃暄益), "*Lattice Variations in $CaTiO_3$ Cubes and Cuboids and Their Use in Photocatalytic Benzimidazole Formation*", J. Mater. Chem. A **13**, 10475 (2025).

TPS 21A X-ray Nanodiffraction

- A. K. Anbalagan*, W.-K. Chan, M.-H. Wu, F.-C. Hu, H.-H. Chiu, A. Sabbah, M. Chaudhary, S. Gupta, K.-W. Chuang, A. C. Gandhi, C.-Y. Chiang, H.-M. Tsai, S.-C. Haw, K. V. Savunthari, H.-J. Lin, L.-C. Chen, K.-H. Chen, N.-H. Tai, Y.-L. Chueh, S. Yun Wu, H.-Y. T. Chen*(陳馨怡), A. L. Walter*, and C.-H. Lee* (李志浩), "*Revealing Robust Room Temperature Ferromagnetism in Gd-doped Few-layered MoS_2 Thin Films*", Adv. Sci. **12**, e10366 (2025).
- C.-T. Chang, C.-W. Chang, J.-H. Ciou, K.-C. Kuo, J. Lin, C.-T. Wu, M.-L. Li, Y.-H. Tseng, Y.-L. Lin, C.-T. Lin, and J.-T. Chen*(陳俊太), "*Transforming Plastic Waste into Strain Sensors: Multifunctional Upcycled TPEE Elastomers with MXene Multilayer Assemblies*", Adv. Mater. Technol. **10**, e00652 (2025).
- C.-W. Chang, C.-T. Chang, J.-H. Ciou, K.-C. Kuo, C.-T. Wu, J. Lin, T.-Y. Lo, Y. Chen, H.-W. Lin, Y.-H. Tseng, M.-L. Li, C.-T. Lin, and J.-T. Chen*(陳俊太), "*Layer-by-layer Techniques Incorporating Upcycled TPEE: from Waste to Conductive, Multi-responsive, Self-healable, and Highly-stretchable Electronics*", J. Mater. Chem. A **13**, 19850 (2025).
- C.-Y. Chang, E.-J. Hsieh, S.-L. Wang, and L. Grillet*, "*L-DOPA Promotes Cadmium Tolerance and Modulates Iron Deficiency Genes in Arabidopsis Thaliana*", Physiol. Plant. **177**, e70024 (2025).
- W.-C. Chang, M. K. Patel, W.-Z. Hsieh, C.-Y. Chiang, and F.-Y. Ouyang* (歐陽汎怡), "*Synergistic Effect of Nanotwins and Compositional Entropy on the Radiation Resistance of CoCrFeNi Thin Films*", Acta Mater. **299**, 121420 (2025).
- Y.-W. Chang, Y.-C. Liu, S.-W. Huang, J.-Y. Sun, S.-Z. Ho, W.-Y. Tzeng, C.-C. Chiu, Y.-C. Ku, P. Kaur, T. A. Butcher, C. Piamonteze, U. Staub, Y.-C. Chen, C.-F. Chang, C.-Y. Kuo, Y.-H. Chu, A. Kleibert, C.-W. Luo, and J.-C. Yang* (楊展其), "*Correlated Magnetic and Electrical Phenomena in Epitaxially Weaved Manganite Lateral Homostructures*", Small **21**, 2411424 (2025).
- M. Chaudhary, A. K. Anbalagan, K.-W. Chuang, S. S. Wani, Z.-L. Yang, B.-C. Huang, S. Quadir, C.-T. Chen, R.-H. Cyu, B. Rehman, M.-J. Liu, C.-Y. Chiang, L.-C. Chen, K.-H. Chen, P. V. Sushko, C.-H. Lee, Y.-P. Chiu, and Y.-L. Chueh* (闕郁倫), "*Phase Transition in Two-dimensional Mono-layer (1L)-molybdenum Disulfide Induced by Atomic S-basal Plane Gliding via Synchrotron X-ray Monochromatic Beam Radiation for Superior Electronic Performance*", Mater. Today **84**, 28 (2025).
- I.-C. Chiu*(邱奕嘉), C.-Y. Chiang, H.-Y. Chang, C.-T. Li, H.-Y. Chi, H.-C. Huang, Paichun Chang, Y.-T. Wang, Ray Lee, I.-Y. Tsao, C.-L. Chiang, Bor Kae Chang*(張博凱), Y.-G. Lin*(林彥谷), and Wei Hsuan Hung*(洪緯璿), "*Advanced High Entropy Oxides for Seawater Splitting*", Sustain. Mater. Technol. **45**, e01515 (2025).
- P.-C. Chu, S.-Y. Kang, M.-L. Yu, Y.-P. Liu, Y.-H. Chen, Y.-C. Hsu, Hyeonseok Lee, C.-Y. Chiang*(蔣慶有), H.-Y. Chang, W.-H. Hung*(洪緯璿), and W.-C. Lin*(林煒淳), "*Ammonia Decomposition and Hydrogen Production via Novel FeCoNiCuMnO High-entropy Ceramic Catalysts*", npj Clean Water **8**, 92 (2025).
- K.-W. Chuang, A. K. Anbalagan*, Y.-J. Wong, Amr Sabbah, M.-H. Wu, Mayur Chaudhary, Kim Kisslinger, S.-C. Haw, C.-Y. Chiang, Y.-L. Chueh, L.-C. Chen, Andi M. Barbour, H.-W. Chang, Andrew L. Walter*, and C.-H. Lee*(李志浩), "*Enabling Room-temperature Ferromagnetism in Few-layered MoS_2 Films via*

Strain Engineering", Appl. Phys. Lett. **127**, 182406 (2025).
- M. Y. Fakhri, W.-C. Lai, B. Jarwal, W.-Z. Hsieh, Y.-H. Tseng, T.-T. Ho, K. S. Bayikadi, S. M. Valiyaveettil, P. Ganesan, C.-Y. Chiang, L.-C. Chen*(林麗瓊), and K.-H. Chen*(陳貴賢), "*Enhanced low-temperature Thermoelectric Properties in Textured Polycrystalline SnS Co-doped with Na and Ag*", J. Alloy. Compd. **1018**, 179124 (2025).
- W.-Z. Hsieh*(謝宛蓁), P.-T. Lee, C.-Y. Lee, Y.-H. Huang, C.-Y. Chiang, and C.-E. Ho*(何政恩), "*In-situ Synchrotron X-ray Study on Microstructure and Stress Evolutions of Electroplated Copper Upon Self-annealing*", J. Taiwan Inst. Chem. Eng. **174**, 106194 (2025).
- Y.-C. Hsu, W.-C. Shih, Y.-C. Shen, L. Lee, C.-T. Chen, T.-Y. Yang, Y.-J. Yu, C.-Y. Chiang, S.-J. Chiu, and Y.-L. Chueh*(闕郁倫), "*Controllable CVD Growth of Monolayered WS_2 From Triangular Flakes toward Wafer-scale Thin Film by Precise Design of Growth Environment*", Adv. Mater. Technol. **10**, e00292 (2025).
- E.-W. Huang*(黃爾文), T.-N. Lam*, Z. H. Aitken, M.-Y. Luo, N.-E. Chiang, Y. Sun, J.-C. Tseng, C.-Y. Chiang, W.-Z. Hsieh, W.-J. Lee, Y.-W. Zhang, P. K. Liaw, and C.-W. Tsai*(蔡哲瑋), "*Mixing-enthalpy Modulation on Phase Transformation in the Gradient Chemical Core/Shell High-entropy Shape-memory Alloys*", Mater. Des. **251**, 113623 (2025).
- Y.-L. Huang*(黃彥霖), M. Yuan Song, C.-M. Lee, Y.-W. Chen, C.-Y. Chiang, S.-H. Chou, L.-C. Hsu, H.-J. Liu, G.-L. Chen, S.-Y. Yang, Y.-J. Chang, I.-J. Wang, Y.-C. Hsin, Y.-H. Su, J.-H. Wei, F. Xue, S. X. Wang, and X. Bao, "*A 64-kilobit Spin-orbit Torque Magnetic Random-access Memory Based on Back-end-of-line-compatible β-tungsten*", Nat. Electron. **8**, 794 (2025).
- Y.-Q. Huang, C.-T. Chen, W.-H. Chen, H.-Y. Sung, K. M. M. D. K. Kimbulapitiya, T.-W. Kuo, C.-C. Wang, C.-Y. Chiang, Y.-C. Hsu, Y.-R. Peng, H.-C. Kuo, W.-W. Wu, Y.-H. Chu*(朱英豪), and Y.-L. Chueh*(闕郁倫), "*Self-assembled $NiSe_2$-$SnSe_2$ Heterostructures From NiO-SnO_2 Films by Plasma-assisted Selenization Process With Efficient Performance of Bifunctional Devices*", Adv. Mater. Technol. **10**, e00707 (2025).
- Y. S. Kim, T. Kang, S.-K. Hong, J. Brechtl, M. Lebyodkin, Y.-H. Cheng, E.-W. Huang, P. K. Liaw, S. Harjo, W. Gong, C.-Y. Chiang, and S. Y. Lee*, "*Fundamental Mechanisms of Discontinuous Deformation in Metals for Cryogenic-environment Applications*", Acta Mater. **292**, 120970 (2025).
- E. Lim, H. H. Lee, S. Hong, S. Lee, W. Cho, J. Baik, H. Yang, H. Yoo*, C.-Y. Chiang*(蔣慶有), and S. Cho*, "*Laser-patterned 2D Transparent Amorphous Phase*", Appl. Surf. Sci. **696**, 162925 (2025).
- P. C. Loni, B. Liang*(梁碧清), C.-Y. Chiang, Y.-C. Lee, J. Rathod, C.-H. Ciou, P.-H. Wu, and W.-H. Chen, "*Enhanced Removal of Antimony, Arsenic and Cadmium by Bone Char in Co-contaminated Aqueous Systems: A Lattice Level Mechanistic Understanding*", J. Environ. Chem. Eng. **13**, 117281 (2025).
- Y.-H. H. Lu, I.-L. Jen, C.-Y. Chiang, W.-Z. Hsieh, G.-C. Yin, Y.-F. Song, and H.-J. Wu*(吳欣潔), "*Modulating Solid-solution Solubility to Enhance Thermoelectric Performance and Maintain Structural Stability in Phase-transition Silver Chalcogenides*", Small **21**, 2401583 (2025).
- T. T. Mai, J.-J. Dai, C.-Y. Chiang*(蔣慶有), and W.-C. Chou*(周武清), "*Layer-wise Dislocation Distribution and Stress Evolution in a GaN-based High Electron Mobility Transistor Studied by X-ray Nanodiffraction*", ACS Appl. Nano Mater. **8**, 15187 (2025).
- Q. Sha, T. Gao, Li Yan, W.-H. Hung, C.-Y. Chiang, D. Zhou*(周道金), B. Liu*(劉彬), Y. Kuang*(鄺允), and X. Sun*(孫曉明), "*Lattice Oxygen Mechanism Induced on Nickel Sites by Cl^- Adsorption for Efficient Seawater Oxidation Reaction*", J. Am. Chem. Soc. **147**, 20716 (2025).
- C.-Y. Sung, Y.-H. Tu, L. T. Quynh, C.-M. Su, H.-Y. Wu, L.-H. Chen, K.-P. Chen, W.-Z. Hsieh, C.-Y. Chiang, W.-H. S. Cheng*(鄭文惠), and Y.-H. Chu*(朱英豪), "*Ag Nanocrystals Intercalated Muscovite Mesocrystal for Large-scale 3D SERS*", Nano Lett. **25**, 11632 (2025).
- D. S. Tomar, R. S. Chen, and S. Chattopadhyay*(薛特), "*Photogating-enhanced Photodetection in Substrate-assisted Borophene-graphene Hybrids*", Nanoscale **17**, 19363 (2025).
- D. S. Tomar, V. Sridhar, R. S. Chen, C.-T. Wu, and S. Chattopadhyay*(薛特), "*Record Photoresponsivity in Hydrogenated Borophene Broadband Photodetector*", ACS Photonics **12**, 6091 (2025).
- J. Wang, M.-T. Liu, C.-S. Hsu, Y.-C. Chu, Y.-F. Liao, C.-W. Pao, T.-S. Chan, W.-T. Chuang, J.-L. Chen, Y.-C. Shao, H. Ishii, N. Hiraoka, C.-Y. Chiang*(蔣慶有), and H. M. Chen*(陳浩銘), "*Resolving Dynamic Behavior of Electrocatalysts via Advances of Operando X-ray Absorption Spectroscopies: Potential Artifacts and Practical Guidelines*", Adv. Mater. **37**, 2418797 (2025).
- S. Wei, J. Zhu*(朱杰鑫), X. Chen, R. Yang, K. Gu, L. Li*(李磊), C.-Y. Chiang*(蔣慶有), L. Mai*(麥立強), and S. Chen*(陳聖華), "*Planar Chlorination Engineering Induced Symmetry-broken Single-atom Site Catalyst for Enhanced CO_2 Electroreduction*", Nat. Commun. **16**, 1652 (2025).
- Y. Xia, T. Yu, Y. Zhang*, K. Miao, C.-Y. Chiang, D. J. Jensen, and G. Fan*(范國華), "*Activation of Unexpected Slip Systems in the Interface Affected Zone in Multilayered Aluminum*", Mater. Res. Lett. **13**, 963 (2025).

TPS 23A X-ray Nanoprobe

- W.-C. Chen, Y.-S. Wu, Y.-C. Lin, Y.-H. Huang, J.-Y. Wu, K.-W. Lin, C.-L. Liu, C.-C. Kuo*(郭霽慶), and W.-C. Chen*(陳文章), "*Ultralow Energy Consumption Conjugated Polymers with Perovskite Quantum Dots via Polarity Adjustment for Photosynaptic Transistors*", Mater. Horizons **12**, 8711 (2025).
- Y.-C. Chen, P.-Y. Li, C.-W. Kung, J.-W. Chang, C.-W. Kao, C.-C. Kuo*(郭霽慶), and W.-R. Liu*(劉偉仁), "*Near-infrared-emitting $(Gd_{1-y}Nd_y)_3(Ga_{1-x}Cr_x)_5O_{12}$ Glass Ceramic Phosphors for Light-emitting Diodes*", Ceram. Int. **51**, 22488 (2025).
- T. A. Kumaravelu*, T. T. T. Nga, R. R. J, G. J, K. M, W.-C. Chou, J.-L. Chen, C.-L. Chen, B.-H. Lin, C.-H. Du, P.-H. Yeh, A. Kandasami, J.-H. Hsu, C.-C. Wang, and C.-L. Dong*(董崇禮), "*Bifunctional NiCo-CuO Nanostructures: A Promising Catalyst for Energy Conversion and Storage*", Small Methods **9**, 2401463 (2025).
- T. A. Kumaravelu, X.-T. Yu, H.-T. Wang, J. Wang, S. Y. H. Liou, L. C. Kao, W.-T. Yang, C.-J. Yang, Y.-R. Lu, C.-L. Chen, B.-H. Lin, D.-H. Wei*(魏大華), and C.-L. Dong*(董崇禮), "*In Situ X-ray Spectroscopy Unveils Charge-driven CO Oxidation over Cu-TiO_2 Mesospheres*", ACS Sustain. Chem. Eng. **13**, 20451 (2025).
- Y.-T. Lai, C.-H. Chen, M.-H. Yu, H.-Y. Kuo, I.-C. Ni, B.-H. Lin, H. Kim, C.-C. Kuo, Y.-J. Lu, and C.-C. Chueh*(闕居振), "*Dual Functionality of Carbazole-based Phosphonic Acid Molecular Additives Realizes Efficient Hole Transport Layer-free Perovskite Light-emitting Diodes*", Chem. Eng. J. **504**, 158876 (2025).
- Y.-T. Liao, C.-H. Li, J.-H. Chen, W.-L. Wei, S.-Y. Liu, H.-L. Liu, B.-H. Lin, M.-Y. Chern, and F.-Y. Lo*(駱芳鈺), "*Visible Light Photoresistance and Response Time of Samarium Doped Zinc Oxide Thin Films Grown by Pulsed Laser Deposition*", Opt. Mater. **167**, 117307 (2025).
- C.-F. Lin, Y.-S. Wu, W.-C. Chen, B.-H. Lin, Y.-C. Lin*(林彥丞), C.-C. Kuo*(郭霽慶), and W.-C. Chen*(陳文章), "*Boosting the Photoresponse of Transistor Memory Utilizing the Ferroelectric Polarization Effect of Polyfluorene/PVDF-based Copolymer Blends*", ACS Appl. Electron. Mater. **7**, 1068 (2025).
- T.-Y. Lin, B.-X. Lee, L.-C. Lo, G.-M. Chen, I.-M. Chen, H.-I. Tsai, Y.-C. Liu, Y.-W. Tsai, K.-C. Chu, M.-T. Tang, B.-H. Lin, and Y.-Z. Chen*(陳雨澤), "*Suppressing Intergranular Corrosion and Uniformizing Zn Deposition for Highly Reversible Anode Toward High Zn Utilization Rate Aqueous Zn Ion Battery*", J. Energy Storage **118**, 116266 (2025).
- Y.-H. Lin*(林裕軒), C.-C. Chen, Y.-H. Chen, Y.-S. Huang, B.-H. Lin, U.-S. Jeng, S.-C. Haw, C.-J. Su, L.-Y. Chang, H.-H. Hsieh*(謝獻旭), and H.-W. Chang*(張漢威), "*Fluorine-free Anodized TiO_2 Nanotube Arrays for Photoelectrochemical H_2O_2 Sensing: Role of Anatase-rutile Phase Transformation*", Surf. Interfaces **74**, 107719 (2025).
- U. R. Nallasani, N. Q. Diep, C.-Y. Lin, T. B. T. Huynh, Q. T. Tran, H.-J. Wang, W.-C. Chou*(周武清), C.-H. Chia, B.-H. Lin, and S. Saurabh, "*Monolithic Integration of 2D GaSe/3D β-Ga_2O_3 Mixed-dimensional Heterostructures on c-sapphire Substrates by Molecular Beam Epitaxy*", ACS Appl. Electron. Mater. **7**, 7827 (2025).
- S. Saurabh, U. R. Nallasani, T.-C. Huang, C.-Y. Lin, Y.-C. Li, Y.-H. Wu, C.-Y. Lee, B.-Y. Chen, G.-C. Yin, M.-T. Tang, W.-C. Chou*(周武清), and B.-H. Lin*(林碧軒), "*Probing the Peculiar Emission Behaviors of c-Sapphire Wafer and β-Ga_2O_3/c-Sapphire via Hard X-ray Nanoprobe*", Opt. Mater. **163**, 116975 (2025).
- A. Singh, Y.-C. Chen*(陳奕嘉), K.-C. Wu, Y.-Y. Shih, T.-C. Huang, W.-L. Wei, Y.-D. Chen, P. H. Nagaraju, J.-C. Lin, B.-H. Lin, M.-T. Tang, and D.-Y. Wang*(王迪彥), "*Pioneering Nucleation for Stable Ultraviolet-to-deep-blue Illuminating Two-dimensional Perovskite Nanoplates by Using Saturated Salt Solution*", Nanoscale **17**, 15204 (2025).
- S. Singh, B. Zhao, C. E. Stevens, G. M. Anilkumar, M. Surendran, T.-C. Huang, B.-H. Lin, J. R. Hendrickson, and J. Ravichandran*, "*Crystal Growth of Chalcogenides and Oxy-chalcogenides Using Chloride Exchange Reaction*", Chem. Mater. **37**, 9144 (2025).
- C.-Y. Teng, C.-W. Hsu, C.-H. Chang, J.-L. Yang, B.-H. Lin, M.-T. Tang, and Y.-C. Tseng*(曾院介), "*Oxygen Migration Impact on Ferroelectric Evolution in $Hf_{0.5}Zr_{0.5}O_2$ Devices*", Appl. Phys. Lett. **126**, 193502 (2025).
- N. A. T. Than, L. C. Hsu, Y.-H. Chen, K. Huangmee, C.-C. Wang, H. Y. Teah, Y.-M. Tzou, Y.-L. Cho*(卓宴琳), and Y.-T. Liu*(劉雨庭), "*Anaerobic Fe(II) Bio-oxidation by Cyanidiophyceae to Enhance As(III) Removal: A Novel and Efficient Biological Material Toward Resilient Remediation*", Chem. Eng. J. **523**, 168303 (2025).
- K.-L. Wang, C.-F. Lin, C. Cheng, T.-C. Huang, B.-H. Lin, Y.-L. Xie, B.-Y. Wang, J. Kung, K.-I. Lin, and K.-F. Hsu*(許桂芳), "*Zinc Selenide Stabilized in a Quadrilateral Network Characterized with Optical Emissions*", CrystEngComm **27**, 2483 (2025).

- Z.-L. Yan, G.-D. Wu, C.-C. Chueh, Y.-C. Huang, B.-H. Lin, J.-H. Tsai, M.-H. Chen, Z.-L. Tseng, Y. Zhou*(周曄), R.-J. Jeng*(鄭如忠), and C.-C. Kuo* (郭霽慶), "*Framing Emission Gain Layers for Perovskite Lightemitting Diodes Using Polycaprolactone-silver Nanoparticles Featuring Forster Resonance Energy Transfer and Purcell Effects*", Mater. Horizons **12**, 935 (2025).
- Z.-L. Yan, T.-M. Hsu, C.-H. Wu, J.-S. Benas, Y.-C. Huang, W.-C. Chen, B.-H. Lin, M.-H. Chen, J.-H. Lin, H. Tsai, C.-C. Chue, C. Adachi*, R.-J. Jeng*(鄭如忠), and C.-C. Kuo*(郭霽慶), "*Flexible Mechanical Response Device With Optical Logic Emission Enabled by Synergistic Crystallization Engineering of Ester Polymer and Perovskite*", Adv. Sci. **12**, e08812 (2025).
- P.-J. Yu, P.-Z. Yu, W.-C. Chen, H. Li, B.-H. Lin, C.-C. Kuo, Y.-C. Lin*(林彥丞), R. Borsali*, and W.-C. Chen*(陳文章), "*Regulating the Perovskite Nanocrystal Allocations in Carbohydrate Block Copolymers through Architecture Engineering for Nonvolatile Phototransistor Memory*", Mater. Today Nano **29**, 100563 (2025).
- P.-J. Yu, W.-C. Chen, Y.-S. Wu, B.-H. Lin, Y.-C. Lin*(林彥丞), R. Borsali*, and W.-C. Chen*(陳文章), "*Oligosaccharide Block Copolymers with Branched Architectures and Channel Energy Level Optimizations for High-performance Floating Gate Phototransistor Memory*", ACS Appl. Mater. Interfaces **147**, 53837 (2025).

TPS 24A Soft X-ray Tomography

- M.-H. Cheng, H.-H. Wang, M.-D. Sang, H.-F. Kuo, Z.-J. Lin, C.-C. Hsieh, C.-H. Hsu, C.-Y. Li, S.-C. Wang, Y.-H. Chen, S.-H. Wu, W.-L. Liu*(劉偉倫), and P.-L. Liu*(劉博命), "*Magnolol Facilitates Mitochondrial-peroxisome Dysfunction and Induces Oxeiptosis in Lung Cancer Cells Following Transfer via Tunneling Nanotubes*", Biomed. Pharmacother. **187**, 118126 (2025).
- S. S. Dwitya, K.-S. Lin*(林鋸松), L.-J. Lai*(賴麗珍), N. V. Mdlovu, Z.-J. Lin*(林子敬), C.-C. Hsieh, and M. D.-S. Hua, "*Intracellular Trafficking of Nanostructured MOF-303 for Targeted Liver Cancer Therapy: A Study Using Soft X-ray Tomography*", Mater. Today Chem. **47**, 102793 (2025).
- C.-C. Hsieh, H.-F. Kuo, H.-H. Wang, M. D.-S. Hua, I.-L. Chen, J.-L. Lin, Y.-C. Lo, Z.-J. Lin, Y.-H. Chen, Y.-R. Kuo, C.-H. Hsu*(許志新), and P.-L. Liu* (劉博命), "*Plumbagin Improves Pulmonary Vascular Remodeling in PAH via miR-21-5p/MMP/TIMP Regulation, with Diagnostic Implications for Cardiac Function*", Biomed. Pharmacother. **192**, 118604 (2025).
- M. D.-S. Hua, Y.-H. Lin, C.-C. Hsieh, C.-L. Chen, and Z.-J. Lin*(林子敬), "*Three Dimensional Visualization of Subcellular and Suborganellar Structures in Near-native Plant Cells by Synchrotron Soft X-ray Tomography*", Front. Plant Sci. **16**, 1705667 (2025).
- C.-Y. Huang, R.-C. Wang, T.-S. Hsu, T.-N. Hung, M.-Y. Shen, C.-H. Chang, and H.-C. Wu*(吳亘承), "*Developing an E. coli-based Cell-free Protein Synthesis System for Artificial Spidroin Production and Characterization*", ACS Synth. Biol. **14**, 1829 (2025).
- C.-W. Lai, C.-Y. Lin, M.-C. Tsai, W.-J. Chen, C.-C. Hsieh, Z.-J. Lin, L.-J. Shen, Y.-L. Chen, L.-J. Lai, S.-H. Chen*(陳淑華), and Y.-H. Shih*(施養信), "*From AI to Action: Antimicrobial Peptides Engineered by Generative Adversarial Networks (GANs)-A Novel Approach to Combat Resistant Bacteria*", Chem. Eng. J. **519**, 164905 (2025).
- C.-H. Liao, M.-Y. Shen, Y.-J. Wang, T.-Y. Yu, R.-J. Jeng, T.-I. Yang, M. B. Dickerson, C.-S. Hung, J. S. Knopp, H.-C. Wu*(吳亘承), and S.-H. Tung* (童世煌), "*Weaving Strength and Conductivity: Spider Silk-modulated Polymer Electrolytes for High-performance All-solid-state Lithium-metal Batteries*", J. Mater. Chem. A **13**, 36072 (2025).
- M.-H. Liu, Z.-J. Gao, W.-Y. Huang, C.-H. Hsiao, V. Chen, L.-J. Lai, Z.-J. Lin, M. D.-S. Hua, C.-C. Hsieh, E.-Y. Chuang, J. Yu*(游佳欣), and K.-T. Wong* (汪根欉), "*New NIR-activated Organic Molecule-based Nanocomposite as an Efficient Sensitizer for Photothermal and Photodynamic Therapy of Cancer*", Adv. Healthc. Mater. **14**, 2404418 (2025).

TPS 25A Coherent X-ray Scattering

- A. G. AboElsood, Y. Xiang, I.-M. Lin, C.-R. Chen, and Y.-W. Chiang*(蔣百旺), "*Coincident Augmentation and Alignment of Lamellar Stacking Structures for Rapid Fabrication of Solid-state Polymer Photonic Crystal Films*", J. Taiwan Inst. Chem. Eng. **172**, 106107 (2025).
- R. Balasaravanan, C.-H. Kuan, Y.-S. Shih, H.-L. Cheng, D. Ganesan, S.-H. Hong, C.-L. Liu, Y.-R. Zhong, X. Jiang, M.-C. Chen*(陳銘洲), and E. W.-G. Diau*(刁維光), "*Electron 'Push-push-pull' Type Dithienopyrrole-based Self-assembled Monolayers on NiOx for Enhanced Performance of Tin Perovskite Solar Cells*", Chem. Eng. J. **519**, 165231 (2025).
- P. F. Chan, Y. Luo, H. Cheng, X. Wang, N. Zhao, J. Wu, C.-J. Su, J.-M. Lin, H. Zhang, and X. Lu*(路新慧), "*Ultra-thin Lead Sulfide Capping for Stabilizing Tin Halide Perovskite Solar Cells*", Small **21**, e06340 (2025).
- B. Chang, C.-H. Chen, A. Yabushita, T.-C. Lu, C.-E. Tsai, T.-Y. Chu, S. Tan, C.-S. Tsao, Y.-S. Chu, F.-C. Ou, and K.-H. Wei*(韋光華), "*Ternary Blend Organic Photovoltaics with High Efficiency and Stability Through Energy Transfer and Molecular Packing Induced by an A-D-A Small Molecule*", Small **21**, 2500692 (2025).
- C.-W. Chang, C.-T. Chang, J.-H. Ciou, K.-C. Kuo, C.-T. Wu, J. Lin, T.-Y. Lo, Y. Chen, H.-W. Lin, Y.-H. Tseng, M.-L. Li, C.-T. Lin, and J.-T. Chen*(陳俊太), "*Layer-by-layer Techniques Incorporating Upcycled TPEE: from Waste to Conductive, Multi-responsive, Self-healable, and Highly-stretchable Electronics*", J. Mater. Chem. A **13**, 19850 (2025).
- C.-Y. Chang, C.-L. Liu, S.-J. Wang, F.-E. Szu, H.-Y. Lin, K.-S. Chuang, M.-K. Leung, and Y.-C. Lin*(林彥丞), "*Alicyclic Design of Sulfonated Polyimide Membranes with a Tricyclodecane Diamine for Improved Ion Crossover Blocking in Vanadium Redox Flow Batteries*", ACS Polym. Au **5**, 589 (2025).
- Y.-Y. Chang, C.-L. Tsai, Y.-J. Xue, Y.-B. Wang, K.-H. Huang, Y.-C. Huang, C.-C. Tseng, J. Lee, B.-H. Jiang, C.-P. Chen, and Y.-J. Cheng*(鄭彥如), "*Side-chain Engineering of C-shaped Ortho-benzodipyrrole-based A-D-A Acceptors for Energy Loss Suppression in Organic Photovoltaics*", J. Mater. Chem. A **13**, 36500 (2025).
- N.-J. Chen, C.-H. Yeh, H.-Y. Cao, N.-C. Chen, C.-J. Chen, C.-Y. Chen, Y.-W. Tsai, J.-M. Lin, Y.-S. Huang, C.-N. Hsiao, and C.-C. Chen*(陳健群), "*High-resolution Imaging of Organic and Inorganic Nanoparticles at Nanometre-scale Resolution by X-ray Ensemble Diffraction Microscopy*", J. Synchrotron Radiat. **32**, 217 (2025).
- W.-C. Chen, Y.-S. Wu, Y.-C. Lin, Y.-H. Huang, J.-Y. Wu, K.-W. Lin, C.-L. Liu, C.-C. Kuo*(郭霽慶), and W.-C. Chen*(陳文章), "*Ultralow Energy Consumption Conjugated Polymers with Perovskite Quantum Dots via Polarity Adjustment for Photosynaptic Transistors*", Mater. Horizons **12**, 8711 (2025).
- Y.-H. Cheng, T.-W. Chang, T. Nishimura, Y.-C. Lai, C.-J. Su, J. Wang, T. Isono* (磯野拓也), T. Satoh*(佐藤敏文), and H.-L. Chen*(陳信龍), "*Accessing Frank-Kasper Phases via Blending of Architecturally Distinct and Sustainable Sugar-based Block Co-oligomers*", Macromolecules **58**, 8686 (2025).
- C.-C. Cho, H.-H. Huang, B.-C. Jiang, W.-Z. Yang, Y.-N. Chen, and H. S. Yuan* (袁小玲), "*Histone Modification-driven Structural Remodeling Unleashes DNMT3B in DNA Methylation*", Sci. Adv. **11**, eadu8116 (2025).
- C.-Y. Chu*(朱哲毅), T.-Y. Lin, W.-S. Chiu, Y.-T. You, C.-C. Chen, S.-J. Lin, H.-M. Wang, Y.-J. Wang, C.-J. Su, and U.-S. Jeng, "*A New Method for Fabrication of the Oriented Double Gyroid Phase in Diblock Copolymers Hybridized with an Extremely Low Content of Magnetic Nanoparticles by Low-intensity Magnetic Fields*", Macromolecules **58**, 5955 (2025).
- L. Deng, R. R. Gonzales*, J. Thomas, R. Takagi, W. Fu, C.-L. Liu, S. Xiang, and H. Matsuyama*(松山秀人), "*Carbon Nanotube Intermediate Layer Intercalation and Its Influence on Surface Charge of Thin Film Composite Membrane*", Compos. Pt. B-Eng. **289**, 111951 (2025).
- T. Fujita, M. Matsuda, P.-S. Lin, C.-A. Chou, J.-M. Lin, C.-L. Liu*(劉振良), and T. Higashihara*(東原知哉), "*Improved Thermoelectric Performance of Phenylalkyl-substituted Polythiophene/Single-walled Carbon Nanotube Nanocomposites*", J. Colloid Interf. Sci. **699**, 138299 (2025).
- C.-W. Hsu, M.-Y. Shen, Y.-J. Wang, S.-H. Hong, Y. Liu, H.-C. Wu*(吳亘承), W.-C. Chen*(陳文章), and C.-L. Liu*(劉振良), "*Morphology-engineered Spider Silk-carbon Nanotube Composites for High-performance and Sustainable Thermoelectric Energy Harvesting*", Chem. Eng. J. **524**, 169375 (2025).
- C.-L. Huang, Y.-B. Wang, C.-C. Tseng, C.-L. Tsai, Y.-Y. Chang, Y.-J. Xue, J. Lee, H.-Y. Chen, and Y.-J. Cheng*(鄭彥如), "*Side-chain Engineering of Benzimidazole-incorporated A-DA′D-A Type Acceptors for Organic Solar Cells and Field-effect Transistors*", J. Chin. Chem. Soc. **72**, 1215 (2025).
- K.-H. Huang, C.-C. Tseng, C.-L. Tsai, Y.-J. Xue, H.-C. Lu, C.-F. Lu, Y.-Y. Chang, C.-L. Huang, I.-J. Hsu, Y.-Y. Lai, Y.-P. Zheng, B.-H. Jiang, C.-P. Chen, S.-Y. Chien, U.-S. Jeng, C.-S. Hsu, and Y.-J. Cheng*(鄭彥如), "*Highly Crystalline Selenium-substituted C-shaped Ortho-benzodipyrrole-based A-D-A-type Nonfullerene Acceptor Enabling Solution-processed Single-crystal-like Thin Films for Air-stable, High-mobility N-type Transistors*", Adv. Funct. Mater. **35**, 2419176 (2025).
- K.-H. Huang, B.-H. Jiang, H.-C. Lu, Y.-J. Xue, C.-F. Lu, Y.-Y. Chang, C.-L. Huang, S.-Y. Chien, C.-P. Chen*(陳志平), and Y.-J. Cheng*(鄭彥如), "*Electron-rich Heptacyclic S,N Heteroacene Enabling C-shaped A-D-A-type Electron Acceptors With Photoelectric Response beyond 1000 Nm for Highly Sensitive Near-infrared Photodetectors*", Adv. Sci. **12**, 2413045 (2025).
- Y.-C. Huang, L.-C. He, K.-Y. Yeh, K.-B. Lin, H.-T. Liu, S.-J. Chiu, Y.-G. Lin, Y.-W. Tsai, J.-M. Lin, S.-H. Chang, T.-M. Wu, K.-K. Hsien, S.-Y. Wang, C.-H. Chien, C.-L. Lin, S.-J. Chang*(張書睿), E. Y. Chang*(張翼), and C. Hu* (胡正明), "*Large-period van der Waals Epitaxy of Au on MoS_2 at Room Temperature: Moiré-engineered Interfaces for Nanoelectronics*", ACS Appl. Nano Mater. **8**, 18208 (2025).
- Z. Jia, X. Guo, X. Yin, M. Sun, J. Qiao, X. Jiang, X. Wang, Y. Wang, Z. Dong, Z. Shi, C.-H. Kuan, J. Hu, Q. Zhou, X. Jia, J. Chen, Z. Wei, S. Liu, H. Liang, N. Li, L. K. Lee, R. Guo, S. V. Roth, P. Müller-Buschbaum, X. Hao, X. Du, and Y. Hou* (侯毅), "*Efficient Near-infrared Harvesting in Perovskite-organic Tandem Solar*

Cells", Nature **643**, 104 (2025).
- B.-H. Jiang, Y.-Y. Hsu, Y.-W. Su, S.-F. Peng, Z.-E. Shi, and C.-P. Chen*(陳志平), "*The Role of Energy Loss in Achieving Ultralow Dark Current Density in Organic Photodetectors*", Adv. Opt. Mater. **13**, 2500258 (2025).
- A. Kumar, B.-H. Chen*(陳柏翰), C.-Y. Lin, N. A. Shumilov, N. J. L. K. Davis, Y.-C. Chao, L.-K. Chu, C.-F. Li, Y.-C. Huang, S.-D. Yang, M. B. Price, P. A. Hume*, J. M. Hodgkiss*, and K. Chen*(陳凱), "*Ultrafast Transient Electroabsorption Illuminates Additive Effects for Enhancing Non-fullerene Photovoltaic Devices*", J. Phys. Chem. Lett. **16**, 10703 (2025).
- Y.-C. Lai, C.-Y. Chen, C.-J. Su*(蘇群仁), and H.-L. Chen*(陳信龍), "*Mesomorphic Phases of the Electrostatic Complexes of Amphiphilic Surfactants with Low-generation Dendrimers*", Giant **25**, 100369 (2025).
- C.-C. Lin, S. P. Prakoso, L. Laysandra, M.-H. Chang, H.-I. Jo, Y.-T. Li, K.-L. Chen, C.-Y. Chen, L. M. Cowen, E. Fujiwara, A. Nyayachavadi, S.-R. Gagné, B. C. Schroeder, S. Ando, W.-T. Chuang, J.-M. Lin*(林智敏), and Y.-C. Chiu* (邱昱誠), "*Altering the Microstructure of Conjugated Polymers in Solution via Microwave Irradiation*", Macromolecules **58**, 7605 (2025).
- C.-Y. Lin, J.-W. Chang, M.-H. Lin, K.-C. Wu, S.-H. Hong, J.-M. Lin, C.-W. Kung*(龔仲偉), and C.-L. Liu*(劉振良), "*Carbon Nanotube/Two-dimensional Metal-organic Framework Composites with Enhanced Thermoelectric Performances for Thermoelectric Generators*", Chem. Eng. J. **521**, 166861 (2025).
- H.-Y. Lin, H.-C. Lu, C.-H. Tsai, H.-J. Liu, P.-W. Chung, W.-T. Chuang*(莊偉綜), and C.-L. Wang*(王建隆), "*The Roles of Molecular Concavities in the Hierarchical Self-assembly of Giant Tetrahedra for CO_2 Uptake*", Chem.-Eur. J. **31**, e202403348 (2025).
- J. Lin, C.-W. Chang, C.-T. Chang, K. Manibalan, T.-H. Tsai, Y.-C. Lin, Y.-S. Hsu, M.-H. Chang, and J.-T. Chen*(陳俊太), "*Wearable and Stretchable Electronics Enabled by MXene-PVA Films via Layer-by-layer Assembly with Integrated UV, Thermal, and Mechanical Sensing*", Chem. Commun. **61**, 10578 (2025).
- P.-S. Lin, K. Yaginuma, Y.-C. Liu, J.-M. Lin, S.-H. Tung, H. Matsumoto, M. Ashizawa*(芦沢実), and C.-L. Liu*(劉振良), "*Synthesis and Thermoelectric Properties of Nickel Tetrathiolate Metallopolymers*", ACS Appl. Energy Mater. **8**, 13499 (2025).
- H.-C. Lo, J.-D. Hu, C.-M. Chou, C.-Y. Chen, J.-M. Lin, C.-W. Chen, C.-L. Wang, W.-T. Chuang, and K.-Y. Wu*(吳冠毅), "*Enhancing Mechanical Properties of Wet-spun PEDOT: PSS Conductive Fibers via Molecular Weight Engineering of PSS*", Eur. Polym. J. **235**, 114085 (2025).
- T.-Y. Lo, M.-L. Li, C.-W. Chang, T.-H. Tsai, H.-H. Su, C.-C. Chang, Y.-S. Hsu, H.-W. Lin, and J.-T. Chen*(陳俊太), "*Synergistic Effects of Azobenzene and Thiourea Backbones in Multiresponsive Copolymers for Sensing and Adhesive Technologies*", Soft Matter **21**, 2704 (2025).
- C.-F. Lu, Y.-C. Huang, L.-Y. Lin, Y.-J. Xue, K.-H. Huang, C.-L. Tsai, C.-S. Wu, S.-Y. Chien, K.-H. Lin*(林昆翰), and Y.-J. Cheng*(鄭彦如), "*Side-chain-modulated Charge Transport Polarity in Curved Ortho-benzodipyrrole-based Acceptors for High-performance Organic Photovoltaics and Transistors*", Chem. Mater. **37**, 8901 (2025).
- Y.-D. Lu, C.-R. Hsu, S.-H. Ke, K.-L. Lai, H.-L. Cheng, Y.-W. Wang, and J.-Y. Chen*(陳蓉瑤), "*Solution-processable and Photo-programmable Logic Gate Realized by Organic Non-volatile Floating-gate Photomemory*", Mater. Horizons **12**, 4788 (2025).
- S. Nagarajan, R. Widyantari, W.-T. Chuang, J.-M. Lin, and E. M. Woo* (吳逸謨), "*Grating Harmony of Orderly-banded Spherulites of Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) with Tunable Structures*", Polymer **317**, 127892 (2025).
- S. Nagarajan, W.-T. Chuang, J.-M. Lin, C.-Y. Chen, and E. M. Woo*(吳逸謨), "*Peculiar Poly(ε-caprolactone) Periodic-dendritic Aggregates: Architecture and Assembly Mechanism Probed Using X-ray Microbeam*", Macromolecules **58**, 1562 (2025).
- S. Nagarajan, B. F. S. Safitri, W.-T. Chuang, J.-M. Lin, C.-Y. Chen, and E. M. Woo*(吳逸謨), "*Microstructure and Chirality: The Impact on Twisted or Tilted Crystals in Ring-banded (R)/(S)-mandelic Acids with Complex Assembly Structures*", J. Phys. Chem. C **129**, 3199 (2025).
- S. Nagarajan, G. Lugito, W.-T. Chuang, J.-M. Lin, C.-Y. Chen, Y.-S. Sun* (孫亞賢), and E. M. Woo*(吳逸謨), "*Pioneering study on Poly(Trimethylene Terephthalate) Grating Assembly: Architecture and Formation Mechanism Probed Using X-ray Microbeam*", Polymer **330**, 128512 (2025).
- S. Nagarajan, W.-T. Chuang, J.-M. Lin, C.-Y. Chen, and E. M. Woo*(吳逸謨), "*Lamellar Organization and Assembly-induced Iridescence Features of Poly(Nonamethylene Terephthalate) Ring-banded Spherulites*", ACS Appl. Polym. Mater. **7**, 16573 (2025).
- S. Nagarajan, C.-T. Yu, C. C. Su, W.-T. Chuang, J.-M. Lin, and E. M. Woo* (吳逸謨), "*Formation and Periodic Banding in Eye-like Structures of Solvent-crystallized Phthalic Acid*", Cryst. Growth Des. **25**, 10449 (2025).
- T. Nishimura, C. Lee, R. Nunokawa, Y.-H. Cheng, F. Li, T. Yamamoto, K. Tajima, R. Borsali, H.-L. Chen*(陳信龍), T. Satoh*(佐藤敏文), and T. Isono*(磯野拓也), "*Molecular Design of a Discrete Oligosaccharide-block-Oligodimethylsiloxane System: Toward Microphase Separation with 1 nm Domain Size and Angstrom-scale Size Control*", Macromolecules **58**, 266 (2025).
- K. Nishiyama, Y.-T. Hsiao, W.-N. Wu, J.-M. Lin, S.-H. Tung, C.-L. Liu*(劉振良), and T. Higashihara*(東原知哉), "*Controlled Synthesis of Alkylthio-substituted Poly(Thienylene Vinylene) and Its Carbon Nanotube Composites for Enhanced Thermoelectric performance*", J. Mater. Chem. A **13**, 3551 (2025).
- A. Sahare, Y.-H. Lin, C.-Y. Chen, and H.-L. Chen*(陳信龍), "*Thermally Induced Distortion of the Hexagonal Close-packed Lattice of Block Copolymer Micelles*", Macromolecules **58**, 4689 (2025).
- Y.-S. Sun*(孫亞賢), B.-C. Zhao, Orion Shih, C.-Y. Chen, C.-J. Su, and J.-M. Lin, "*Tunable Formation of Two-dimensional Nanostructures and Complex Crystals via Lead(II) Bromide Complexation and Inclusion Crystallization with Polystyrene-block-poly (Ethylene oxide) in 1,3,5-trimethylbenzene*", Nanoscale **17**, 24208 (2025).
- Y.-S. Sun*(孫亞賢), B.-C. Zhao, C.-C. Yang, O. Shih, C.-Y. Chen, C.-J. Su, and J.-M. Lin, "*Hybrid Hairy Two-dimensional Nanostructures with Tunable Morphologies by Inclusion Crystallization of Lead Bromide Complexes with Polystyrene-block-poly(Ethylene oxide)*", Langmuir **41**, 31780 (2025).
- C.-Y. Teng, C.-W. Hsu, C.-H. Chang, J.-L. Yang, B.-H. Lin, M.-T. Tang, and Y.-C. Tseng*(曾院介), "*Oxygen Migration Impact on Ferroelectric Evolution in $Hf_{0.5}Zr_{0.5}O_2$ Devices*", Appl. Phys. Lett. **126**, 193502 (2025).
- C.-L. Tsai, H.-C. Lu, C.-C. Tseng, Y.-J. Xue, K.-E. Hung, C.-S. Wu, C.-C. Chang, C.-S. Hsu, K. Gugujonovic, M. C. Scharber, F.-Y. Cao*(曹峯溢), and Y.-J. Cheng*(鄭彦如), "*Perfluorophenyl-incorporated Ferrocene: A Non-volatile Solid Additive for Boosting Efficiency and Stability in Organic Solar Cells*", ACS Appl. Mater. Interfaces **17**, 32722 (2025).
- P.-Y. Tsai, T.-Y. Chen, W.-T. Chuang, and S.-H. Hsu*(徐善慧), "*Self-assembled Chitosan-boronic Acid Hydrogel as Dynamic Crosslinker to Produce 3D-printable Glucose-sensitive Hydrogel*", Carbohydr. Polym. **363**, 123737 (2025).
- C.-C. Tseng, L.-L. Yeh, C.-Y. Chang, C.-L. Huang, C.-L. Tsai, Y.-J. Xue, F.-C. Chen, C.-S. Hsu, T.-Y. Chu, J. Lu, U.-S. Jeng*(鄭有舜), and Y.-J. Cheng* (鄭彦如), "*A C_6F_5-functionalized Benzimidazole Acceptor Enabling Supramolecular Fluorinated Interactions for Enhanced Photovoltaic Performance and Thermal Stability*", J. Mater. Chem. A **13**, 20519 (2025).
- C.-H. Tung, Y. Wang, J.-M. Carrillo, Y. Shinohara, C.-Y. Chen, J.-M. Lin, L. Porcar, R. P. Murphy, G.-R. Huang, L. Ding, C. Do, and W.-R. Chen*(陳威仁), "*Bayesian Inference of Anisotropic 2D Small-angle Scattering from Sparse Measurement*", J. Chem. Phys. **163**, 154103 (2025).
- A. Velusamy, C.-H. Kuan, T.-C. Lin, Y.-S. Shih, C.-L. Liu, D.-Y. Zeng, Y.-G. Li, Y.-H. Wang, X. Jiang, M.-C. Chen*(陳銘洲), and E. W-G. Diau*(刁維光), "*Bithiophene Imide-based Self-assembled Monolayers (SAMs) on NiOx for High-performance Tin Perovskite Solar Cells Fabricated Using a Two-step Approach*", ACS Appl. Mater. Interfaces **17**, 952 (2025).
- C.-L. Wang*(王建隆), W.-T. Chuang*(莊偉綜), M.-T. Lee, Y.-R. Wang, S.-Y. Chen, H.-J. Huang, S.-Y. Liu, J.-M. Lin, C.-Y. Chen, Y.-C. Lee, and U.-S. Jeng, "*Deactivating Symmetry Breaking of a Soft Frank-Kasper Phase via Water-induced Conformational Ordering of a Shapeshifting Dendritic Amphiphile*", ACS Appl. Mater. Interfaces **17**, 31403 (2025).
- Y.-B. Wang, Y.-J. Xue, C.-M. Hung, K.-H. Huang, B.-H. Jiang, C.-L. Tsai, Y.-C. Huang, H.-Y. Chen, S.-D. Yang, S.-Y. Chien, C.-P. Chen, P.-T. Chou*(周必泰), and Y.-J. Cheng*(鄭彦如), "*Effect of Halogen/Chalcogen Substitution on the Dielectric Constant of Asymmetric Acceptor Alloy to Improve the Efficiency and Stability of Inverted Organic Photovoltaics*", Chem. Sci. **16**, 17391 (2025).
- Y.-B. Wang, C.-L. Tsai, Y.-J. Xue, B.-H. Jiang, H.-C. Lu, J.-C. Hong, Y.-C. Huang, K.-H. Huang, S.-Y. Chien, C.-P. Chen, and Y.-J. Cheng*(鄭彦如), "*Fluorinated and Methylated Ortho-benzodipyrrole-based Acceptors Suppressing Charge Recombination and Minimizing Energy Loss in Organic Photovoltaics*", Chem. Sci. **16**, 3259 (2025).
- W.-N. Wu, K. Nishiyama, C.-Y. Chen, J.-M. Lin, S.-H. Tung, T. Higashihara* (東原知哉), and C.-L. Liu*(劉振良), "*Tuning the Nano-scale Aggregate Structure of Conjugated Block Copolymers for Enhanced Singlewalled Carbon Nanotube Dispersion and Thermoelectric Applications*", J. Mater. Chem. A **13**, 31542 (2025).
- Y. Xiang, A. G. AboElsood, W.-T. Chuang, Y.-C. Hung, and Y.-W. Chiang* (蔣酉旺), "*Engineering Precursor Localization via Solvency for Simultaneously Metallizing and Hollowing Bicontinuous Gyroid Structures*", Small **21**, 2505516 (2025).
- Y.-J. Xue, C.-Y. Chang, C.-M. Hung, C.-C. Tseng, J.-W. Chang, C.-J. Su, C.-L. Tsai, H.-C. Lu, K.-H. Huang, K.-Y. Tai, C.-Y. Ku, C.-S. Wu, S.-Y. Chien, S.-D. Yang, B.-H. Jiang, C.-P. Chen, P.-T. Chou*(周必泰), U.-S. Jeng*(鄭有舜), and Y.-J. Cheng*(鄭彦如), "*Side-chains Engineered Self-assembly of Ortho-*

benzodipyrrole-based Acceptors: Comprehensive Exploration of Structure-interface-photovoltaics Correlations", Adv. Funct. Mater. **35**, e04705 (2025).
- C.-H. Yang, Y. Wei, C.-Y. Tsao, and C.-C. Hua*(華繼中), "*Revisiting the Solution Properties of Sodium Alginate in Aqueous Media*", Soft Matter **21**, 7393 (2025).

TPS 27A Soft X-ray Nanoscopy

- T.-H. Chuang, H.-W. Wei, W.-S. Chiu, C.-C. Hsu, Fan Zhang, Yaxing Li, W.-T. Hsu, J.-S. Jhuang, Chengye Dong, Joshua A. Robinson, Y.-C. Lin, D.-H. Wei* (魏德新), and C.-K. Shih*(施至剛), "*Momentum Microscopy Investigation of the Local Band Structure of Monolayer WSe_2 Flakes: Toward Optoelectronic Device in Quantum Size*", ACS Appl. Nano Mater. **8**, 23164 (2025).

TPS 31A Projection X-ray Microscopy and Transmission X-ray Microscope

- S. S. S. Ali, S. A. Khan, Y.-T. Tsai, C.-H. Lee, Y.-F. Song, G.-C. Yin, C.-K. Chang, Y.-C. Chuang, S.-J. Huang, C.-W. Pao, T.-Y. Chen, and M.-H. Fang*(方牧懷), "*Supersaturation-driven Co-precipitation Enables Scalable Wet-chemical Synthesis of High-purity Na_3InCl_6 Solid Electrolyte for Sodium-ion Batteries*", Small **21**, e09165 (2025).
- H. Chen, H.-W. Liu, Y.-C. Lu, P.-J. Yu, C.-H. Liao, C.-C. Wang, T.-S. Chan, H.-S. Sheu, P.-Y. Chang, J.-L. Chen, S.-C. Haw, G.-C. Yin, Y.-F. Song, C.-W. Pao, and N.-L. Wu*(吳乃立), "*Realizing Practical Use of $LiNiO_2$ Cathode in Halide-based All-solid-state Lithium Metal Batteries*", Chem. Eng. J. **519**, 165314 (2025).
- C.-C. Hsieh, J.-Z. Dai, C.-C. Ni, S.-Y. Wei, M.-C. Tsai, P.-Y. Chen, Ling Fang, R.-H. Xie, G.-Y. Chen, G.-C. Yin, and Y.-C. Chen*(陳盈潔), "*Prevascularized Hydrogel Enhancing Innervation and Repair of Full-thickness Volumetric Muscle Loss in Abdominal Wall Defects*", Adv. Healthc. Mater. **14**, 2402433 (2025).
- C.-C. Huang, H.-W. Chen, J.-W. A. Hsieh, Y.-C. Lin, Y.-P. Li, C. Chen, Y.-F. Song, G.-C. Yin, T.-L. Mai, Y.-C. J. Lin*(林盈仲), and Y.-K. Tu*(杜元凱), "*Transcriptomic Analysis of Peaches and Nectarines Reveals Alternative Mechanism for Trichome Formation*", BMC Plant Biol. **25**, 620 (2025).
- ◦ C.-J. Huang, J. A. S. Oh, M. Vicencio, T. Hu, H. Yang, J. N. Burrow, Y.-F. Song, G.-C. Yin, P. Shevchenko, K. M. Wiaderek, B. J. Hwang, and Y. S. Meng*(孟穎), "*X-ray Micro-computed Tomography for Structural Analysis of All-solid-state Battery at Pouch Cell Level*", ACS Energ. Lett. **10**, 3459 (2025).
- K.-Y. Liang, H.-C. Huang, C.-Y. Tseng, C.-Y. Chen, Y.-S. Tseng, Y.-F. Song, G.-C. Yin, and T.-C. Su*(蘇德徵), "*Investigation of Fe-rich Intermetallics, Solidification Porosities, and Cooling Dynamics in 6061 Aluminum Alloy by Multiscale Characterization, Synchrotron X-ray Tomography, and ICME Approaches*", Light Metals, 205 Las Vegas, USA (2025).
- H.-W. Liu, H. Chen, S. Thi, P.-J. Yu, J.-L. Chen, C.-W. Pao, P.-Y. Chang, S.-C. Haw, Y.-F. Liao, Y.-C. Shao, G.-C. Yin, Y.-F. Song, S.-K. Parthasarathi, Y.-T. Weng, and N.-L. Wu*(吳乃立), "*High-capacity Ni-rich Composite Cathodes Having Chemically Fused Interface with Li_3InCl_6 Electrolyte Towards Low-pressure Operating All-solid-state Li-ion Batteries*", Compos. Pt. B-Eng. **293**, 112133 (2025).
- Y.-H. H. Lu, I.-L. Jen, C.-Y. Chiang, W.-Z. Hsieh, G.-C. Yin, Y.-F. Song, and H.-J. Wu*(吳欣潔), "*Modulating Solid-solution Solubility to Enhance Thermoelectric Performance and Maintain Structural Stability in Phase-transition Silver Chalcogenides*", Small **21**, 2401583 (2025).

TPS 32A Tender X-ray Absorption Spectroscopy

- S. A. Ahmed, T. Agnihotri, A. Ranjan, C.-Y. Chang, C.-C. Chang, R. Hasan, Y. Nikodimos, T. M. Hagos, S.-H. Wu*(吳溪煌), W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Boosting Stability in Ni-rich Cathodes: a Synergistic Approach to Surface and Bulk Modifications for Advanced Lithium-ion Batteries*", J. Mater. Chem. A **13**, 14846 (2025).
- S.-C. Chen, S.-W. Lin, S.-L. Chang, Y.-R. Lu*(盧英睿), and C.-J. Chen* (陳致融), "*Efficient H_2O_2 Electrosynthesis via Strategic Regulation of Sulfur Coordination in Single-atom Catalysts*", Chem. Eng. J. **521**, 166571 (2025).
- W. Chen, J. Chen, C. Ma, M. Han, M. Yang, Y.-C. Huang, Y. Wu, Y. Jiang, R. Wang, T. Wang, Y.-R. Lu, Y. Zou*(鄒雨芹), and S. Wang*(王雙印), "*Synergistic Mechanism for Unconventional Anodic Reaction of Aldehyde Oxidation for Hydrogen Production*", Angew. Chem. Int. Edit. **64**, e202425258 (2025).
- Y. Chen, J. Li, Y. Chen, Y. Cheng, X. Tian, D. Xiao, H.-T. Wang, Y.-R. Lu, L. Zhang*(張林杰), W. Lin*(林文烈), J. Luo, and L. Han*(韓麗麗), "*Nitrogen-doping-induced Electron Spin Polarization Activates Scandium Oxide as High-performance Zinc-air Battery Cathode*", J. Colloid Interf. Sci. **686**, 96 (2025).
- ◦ P.-T. Chou, C.-C. Kuo, P.-Y. Peng, Y.-R. Lu, C.-L. Chen, and Y.-C. Lin*(林裕川), "*Redox-driven Exsolution and Dissolution Behavior of High-entropy Spinel Catalysts: A Comparative Study of MnFeCoNiCuOx and MnCoNiCuZnOx*", ACS Appl. Mater. Interfaces **17**, 52315 (2025).
- J. Cui, B. Du, X. Jin, Z. Huang, X. Peng, W. Li, W. Li*(李巍), Y.-C. Huang, Y.-R. Lu, C. Chen, and H. Deng*(鄧紅兵), "*Activating Co^{2+}/Co^{3+} Redox Couple Mediated-electrooxidation of 5-hydroxymethyl Furfuryl Under Low Potentials*", Angew. Chem. Int. Edit. **64**, e202513396 (2025).
- A. Das*, M. Zając, W.-H. Huang, C.-L. Chen, A. Kandasami, and C. Bittencourt, "*The Impact of Willemite Zn_2SiO_4 Phase in B1 to B2 Type Structural Phase Transformation in $Cd_xZn_{1-x}O$ Composite Thin Films*", Thin Solid Films **812**, 140616 (2025).
- Z. Guo, F. Li, Y. C. Xiao, S.-F. Hung, Y.-R. Lu, A. Foroozan, J. Liu, S. S. Sun, S. Liu, Y. Che, Q. Wang, M. Liu, C. Wang, Y. Li, K.-S. Peng, Y.-C. Liu, M. Fan, Z. A. Dijvejin, P. Papangelakis, Y. Wang, A. S. Zeraati, K. Han, P. Corbett, D. Higgins, R. K. Miao*, and D. Sinton*, "*Efficient Amino-acid-based Reactive Capture of CO_2 via Nickel Molecular Catalyst*", Nat. Commun. **16**, 10373 (2025).
- K.-Y. Hsiao, Y.-D. Lin, Y.-R. Lin, C.-W. Chin, C.-H. Lin, R.-H. Cyu, Y.-G. Lin, Y.-L. Chueh, and M.-Y. Lu*(呂明諺), "*Atomic-scale Visualization of Single Atom Formation in Metal-organic Frameworks*", J. Mater. Chem. A **13**, 21077 (2025).
- H. Huang, Y. Wang, S. Zhang, Y.-C. Huang, Y.-R. Lu, C.-L. Chen, J. Ma, Z. Hu* (胡志偉), J.-Q. Wang*(王建強), and L. Zhang*(張林娟), "*Role of Bi Adatoms in Bi@Pd Nanoparticles for Electrochemical CO_2 Reduction*", ACS Nano **19**, 15509 (2025).
- S. Karuppuchamy, T. A. Kumaravelu, T. T. T. Nga, C.-L. Chen, T.-S. Chan, C.-L. Dong, D. Arumugam, S. Ramasamy, M. Govindasamy, C.-Y. Kuo*(郭志宇), and S. Thangavelu*, "*Tailored Cobalt Single Atoms on Strong Metal-support Interactions Drive the Tandem Bifunctional Electrocatalytic Overall Water Splitting*", ACS Appl. Energy Mater. **8**, 11099 (2025).
- N. Karuppusamy, S. Manavalan, S. M. Chen*(陳生明), B.-S. Lou*(駱碧秀), S. M. Jung, T. T. T. Nga, P. Mannu, C. L. Dong, Y. Li, C.-M. Wang*(王志銘), Y.-F. Duann*(段葉芳), C.-L. Chen, and J.-W. Lee, "*Zerovalent Fe Atom-enriched Fe_3C@C Electrocatalysts for Selective Heavy Metals Sensing*", ACS Appl. Nano Mater. **8**, 18018 (2025).
- A. Kaur, A. Das*, T. L. Kumavat, W.-H. Huang, S. Gupta, J. V. Vas, C.-L. Chen, A. Kandasami, D. Singh, and Y. Sonvane, "*Enhancement of Ferroelectric Polarization in Sm-doped $BaFe_{0.2}Ti_{0.8}O_3$ Ceramics*", J. Phys.-Condens. Mat. **37**, 185602 (2025).
- T. A. Kumaravelu*, T. T. T. Nga, R. R. J, G. J, K. M, W.-C. Chou, J.-L. Chen, C.-L. Chen, B.-H. Lin, C.-H. Du, P.-H. Yeh, A. Kandasami, J.-H. Hsu, C.-C. Wang, and C.-L. Dong*(董崇禮), "*Bifunctional NiCo-CuO Nanostructures: A Promising Catalyst for Energy Conversion and Storage*", Small Methods **9**, 2401463 (2025).
- J. Li, J. Zhao, S. Wang*(汪思波), K.-S. Peng, B. Su, K. Liu, S.-F. Hung, M. Huang, G. Zhang, H. Zhang, and X. Wang*(王心晨), "*Activating Lattice Oxygen in Perovskite Ferrite for Efficient and Stable Photothermal Dry Reforming of Methane*", J. Am. Chem. Soc. **147**, 14705 (2025).
- M. Li, Y. Jiang, W. Chen*(陳維), Y. Huang, Y. Lu, L. Xu, S. Li, Y. Wu, Z. Xia, R. Wang, S. Wang, and Y. Zou*(鄒雨芹), "*Internal Lattice Oxygen Sites Invert Product Selectivity in Electrocatalytic Alkyne Hydrogenation Over Copper Catalysts*", Nat. Commun. **16**, 3884 (2025).
- W.-H. Li, L.-C. Hsu, H.-Y. Chen, Y.-C. Chen, H. Y. Teah, Y.-Y. Kung, Y.-M. Tzou, and Y.-T. Liu*(劉雨庭), "*Hybridizing Mg-Fe Layered Double Hydroxide with Pectin Natural Polymer for Organic Ligand-responsive Phosphate Release: An Innovative Controlled-release Phosphorus Fertilizer*", J. Agr. Food Chem. **73**, 7131 (2025).
- S.-W. Lin, S.-C. Chen, Y.-R. Lu*(盧英睿), and C.-J. Chen*(陳致融), "*Stepwise chemical-electrochemical cycles for decoupling modular biomass oxidation and hydrogen evolution*", Chem. Eng. J. **505**, 158764 (2025).
- Y. Lu, F. Yue, T. Liu, Y.-C. Huang, F. Fu*(付峰), Y. Jing*(荊宇), H. Yang* (楊恒權), and C. Yang*(楊春明), "*Size-effect Induced Controllable Cu^0-Cu^+ Sites for Ampere-level Nitrate Electroreduction Coupled with Biomass Upgrading*", Nat. Commun. **16**, 2392 (2025).
- J. Luo, G.-H. Lee, S. Kang, J. Zhang*(張吉亮), C.-L. Chen, C.-K. Chang, Z.-Y. Li, R. Zeng, H. Li, J. Li, R. Zhao*(趙瑞瑞), Q. Zheng, and Y.-M. Kang*, "*Mitigating Chemo-mechanical Heterogeneity of Ni-rich Layered Cathodes Through the Regulated Medium-range Order by Doping*", Energ. Environ. Sci. **18**, 4753 (2025).
- P. Mannu, R. K. Dharman, T. T. T. Nga, A. Mariappan, Y.-C. Shao, H. Ishii, Y.-C. Huang, A. Kandasami, T. H. Oh*, W.-C. Chou, C.-L. Chen, J.-L. Chen, and C.-L. Dong*(董崇禮), "*Tuning of Oxygen Vacancies in Co_3O_4 Electrocatalyst for Effectiveness in Urea Oxidation and Water Splitting*", Small **21**, 2403744 (2025).
- K.-S. Peng, Y.-J. Shen, Y.-C. Chang, Y.-C. Liu, C.-H. Chou, Y.-C. Chang, M.-H. Li, Y.-R. Lu, S.-H. Hsu, and S.-F. Hung*(洪嵚富), "*Effect of Electrolyte Cations on the Selectivity of Electrochemical CO_2 Reduction in a Flow Cell System*", J. Chin. Chem. Soc. **72**, 1319 (2025).
- L. Ren, K. Zhang, Y.-C. Huang, Y. R. Lu, H. Deng, Y. Ding, C. Chen, B. Huang, W. Hua, L. Fu, X. Zhao, S. Shen, J. Wei, and J. Chen*(陳杰), "*Tailored Interatomic Interactions in High-entropy Alloys for Enhanced Electrocatalytic*

Hydrogen Evolution Reaction in Alkaline Water", ACS Catalysis **15**, 11022 (2025).

- Y.-C. Shen, C.-C. Chang, D. R. Sahu, W.-H. Chu, C.-L. Chen, W.-N. Su, J.-L. Huang, S.-C. Wang*(王聖璋), and Y.-M. Shen*(沈祐民), "*Structural Evolution and Electrocatalytic Mechanism of Bimetallic Nickel-molybdenum/g-C_3N_4 Composites in Alkaline Hydrogen Evolution Reaction: XAS and Operando TEM Study*", Int. J. Hydrogen Energ. **190**, 152249 (2025).
- Y.-J. Shen, Y.-H. Hsu, Y.-C. Chang, J.-J. Ma, K.-S. Peng, Y.-R. Lu, S.-H. Hsu, and S.-F. Hung*(洪崧富), "*Microenvironment Matters: Copper-carbon Composites Enable a Highly Efficient Carbon Dioxide Reduction Reaction to C_2 Products*", ACS Appl. Mater. Interfaces **17**, 9378 (2025).
- S. Shilpa, F. Yuan, Z. Li, P. Dahiya, A. C. Mata, R. M. Yadav, G. Gao, S.-F. Hung, S. A. Khan, J. Wu, M. M. Rahman, and S. Roy*, "*Polymer Derived and Ni-single Atom Doped Carbon Nanofibers for CO_2 Capture and Electroreduction to CO*", ChemSusChem **18**, e202500602 (2025).
- T. Sun*(孫濤), T. Yang, W. Zang, J. Li, X. Sheng, E. Liu, J. Li, X. Hai, H. Lin, C.-H. Chuang, C. Su, M. Fan, M. Yang, M. Lin, S. Xi, R. Zou*(鄒如強), and J. Lu*(呂炯), "*Atomic Gap-state Engineering of MoS_2 for Alkaline Water and Seawater Splitting*", ACS Nano **19**, 5447 (2025).
- M. Vafaie, R. Dorakhan, A. M. Najarian, Z. Teimouri, A. Pofelski, N. Barati, C.-H. Chou, Y.-C. Chang, S.-F. Hung, Q. Sun, Z. A. Dijvejin, R. Ngunjiri, Y. Li, A. S. Zeraati, K. E. Salem, R. K. Miao, S. Hoogland, D. Higgins, E. H. Sargent*, and D. Sinton*, "*Direct Electrosynthesis of C_{3+} Hydrocarbons from CO_2 via Size-controlled Nickel Nanoislands on a Carbon Support*", J. Am. Chem. Soc. **147**, 40454 (2025).
- M. Wang, Y. Li, J. Jia, T. Ghosh, P. Luo, Y.-J. Shen, S. Wang, J. Zhang, S. Xi, Z. Mi, M. Zhang, W. R. Leow, B. Johannessen, Z. Aabdin, S.-F. Hung, J. Zhang* (張杰), and Y. Lum*(林彥瑋), "*Tuning Catalyst-support Interactions Enable Steering of Electrochemical CO_2 Reduction Pathways*", Sci. Adv. **11**, eado5000 (2025).
- M. Wang, C. Luo, Z. Mi, Y.-C. Chang, Y.-T. Chueh, P. Luo, M. Zhang, J. Zhang, R. Yang, Q. Yang, S. Wang, S. Chen, J. Jia, W. R. Leow, Z. Aabdin, S.-F. Hung, and Y. Lum*(林彥瑋), "*Triple-phase Boundaries Enable Selective Urea Production From Simulated Flue Gas in a Zero-gap Electrolyzer*", Angew. Chem. Int. Edit. **64**, e202505987 (2025).
- T. Wang, T. Jin*(金田), Z. Liu, J. Wang, Y. Gong, M. Ma, J. Chen*(陳杰), S. Shen, R. Wu, Y.-C. Huang, Y. R. Lu, Y. Lyu*(呂毅), and X. Liu*(劉曉菲), "*Electronic Microenvironment Regulation of Bismuth-salophen Single-site Catalysts for Enhanced Selectivity in CO_2 Electrolysis to Formic Acid*", Adv. Sci. **12**, e02061 (2025).
- F. Wei, J. Zhao, Y.-C. Liu, Y.-H. Hsu, S.-F. Hung, J. Fu, K. Liu, W. Lin, Z. Yu, L. Tan, X. F. Lu, C. Feng, H. Zhang*(張華彬), and S. Wang*(汪思波), "*Photocatalytic Ethylene Production Over Defective NiO Through Lattice Oxygen Participation*", Nat. Commun. **16**, 6586 (2025).
- T.-H. Wen, W.-L. Huang, P.-Y. Peng, Y.-R. Lu, C.-L. Chen, B. R. Goldsmith, and Y.-C. Lin*(林裕川), "*Bayesian Optimization-guided Design of Silica-supported Nickel Catalysts from Nickel Phyllosilicates*", ACS Eng. Au **5**, 425 (2025).
- C.-Y. Wu, C.-E. Huang, A.-C. Luo, W.-H. Lu, S.-C. Huang, Y.-M. Huang, V. K. Peterson, H.-Y. Liu, C.-L. Chen, Y.-R. Lu, T.-Y. Chen, C.-Z. Lu*(陸成章), W. K. Pang*, and H.-Y. Chen*(陳翰儀), "*Enabling High-performance and High-ratecapability $Na_4MnV(PO_4)_3$ Sodium-ion Battery Cathodes Through Tuning the NASICON Framework*", J. Mater. Chem. A **13**, 2716 (2025).
- Y. Wu, J. Chen, T. T. T. Nga, Y. Xu, M. Qiu, D. Wang, R. Wang, C. Xie, W. Wu, Q. Liu, C.-L. Dong, S. Wang, and Y. Zou*(鄒雨芹), "*Unconventional Inverse Size-effects Enable Efficient C-N Coupling on Copper Electrocatalysts*", Angew. Chem. Int. Edit. **64**, e202517830 (2025).
- Z. Xiang, Y.-R. Lu, L. Meng, J. Lan, F. Xie, S. Gao, J. Li, M. Luo*(羅琳), M. Peng*(彭鳴), and Y. Tan*(譚勇文), "*Active Hydrogen Enrichment on Cu_6Sn_5-type High Entropy Intermetallics for Efficient Nitrate Reduction Reaction*", Adv. Mater. **37**, 2501886 (2025).
- T. Xu, J. Shi, K.-S. Peng, Y.-H. Hsu, Y.-C. Liu, S. Wang, H. Zhang, Y. Wang, G. Zhang, S.-F. Hung, K. Liu*(劉鋭隆), and X. Wang*(王心晨), "*Organic Surface Passivation on Rh@CeO_2 Cocatalysts for Photocatalytic Overall Water Splitting*", Angew. Chem. Int. Edit. **64**, e202513029 (2025).
- Q. Yang, X. Wang, J. Zhang, Y. Mao, S. Xi, Y.-C. Liu, Y.-H. Hsu, L. Zhang, S. B. Dolmanan, M. Wang, B. Wang, Y. Zang, M. Zhang, W. R. Leow, S.-F. Hung, Z. Wang*(王子運), and Y. Lum*(林彥瑋), "*Ethylene Electrosynthesis at Low Voltages Enabled by Dopant-induced Modulation of the Rate-determining Step*", Nat. Synth. **4**, 1396 (2025).
- Q. Yang, X. Wang, Y. Yang, Z. Mi, L. Wang, Y.-J. Shen, K.-S. Peng, M. Zhang, T. Ghosh, R. Yang, L. Huang, J. Zhang, Z. Aabdin, W. R. Leow, S.-F. Hung* (洪崧富), Z. Wang*(王子運), and Y. Lum*(林彥瑋), "*Electrochemical Assembly of a Defective Cu Catalyst for High Current CO_2 Electrolysis to Methane in a Zero-gap Electrolyzer*", Angew. Chem. Int. Edit. **64**, e202515396 (2025).
- L.-J. Yuan, Z.-Y. Miao, X.-L. Sui*(隋旭磊), C.-F. Lee, Q. Li, M.-J. Yin, L.-X. Shen, Y.-R. Lu, Z.-G. Zhao, Y.-Z. Liu, L.-S. Zhu, W. Gong, W.-L. Feng, H.-T. Wang*(王孝祖), G.-X. Zhang*(張國旭), and Z.-B. Wang*(王振波), "*Janus Effect of FeCo Dual Atom Catalyst with Co as Active Center in Acidic Oxygen Reduction Reaction*", Nat. Commun. **16**, 7198 (2025).
- J. Zhang, X. Zhai, T. Zhao, X. Yang, Q. Wang, Z. Chen, M.-C. Chen, J.-J. Ma, Y.-R. Lu, S.-F. Hung, and W. Hua*(滑緯博), "*What Impact Does Ammonia Have on the Microstructure of the Precursor and the Electrochemical Performance of Ni-rich Layered Oxides?*", J. Mater. Chem. A **13**, 1181 (2025).
- Z. Zhang, Z. Ren, C.-W. Hsu, W. Chen, Z.-W. Hong, C.-F. Lee, A. Penn, H. Xu, D. J. Zheng, S. Miao, Y. Huang, Y. Gao, W. Chen, H. Smith, Y. Niu, Y. Tian, Y.-R. Lu, Y.-C. Shao, S. Li, H.-T. Wang, I. I. Abate, P. Agrawal, Y. Shao-Horn, and J. Li*(李巨), "*A Multimodal Robotic Platform for Multi-element Electrocatalyst Discovery*", Nature **647**, 390 (2025).
- T. Zhao, J. Zhang, K. Wang, Y. Xiao*(肖遥), Q. Wang, L. Li, J. Tseng, M.-C. Chen, J.-J. Ma, Y.-R. Lu, I. Hirofumi, Y.-C. Shao, X. Zhao*(趙孝先), S.-F. Hung, Y. Su, X. Mu, and W. Hua*(滑緯博), "*Exploring the Mechanism of Surface Cationic Vacancy Induces High Activity of Metastable Lattice Oxygen in Li- and Mn-rich Cathode Materials*", Angew. Chem. Int. Edit. **64**, e202419664 (2025).

TPS 39A Nanometer Angle-resolved Photoemission Spectroscopy

- D. Song, S. Lee, Z. Shen, W. Jung, W. Lee, S. Choi, W. Kyung, S. Jung, C.-M. Cheng, J. Kwon, S. Ishida, Y. Yoshida, S. R. Park, H. Eisaki, Y. Wang*, K.-Y. Choi*, and C. Kim*, "*Interplay Between Hole Superconductivity and Quantum Critical Antiferromagnetic Fluctuations in Electron-doped Cuprates*", Nat. Commun. **16**, 2764 (2025).

TPS 41A Soft X-ray Scattering

- W.-T. Huang, Y.-S. Chen, Y.-H. Lin, A. Lazarowska, N. Majewska, S. Mahlik, G. Leniec, H.-Y. Huang, A. Singh, D.-J. Huang, P. Fu, Z. Xiao*(肖澤文), and R.-S. Liu*(劉如熹), "*Rational Design of Organic Manganese Halides for High Quantum Efficiency and Stability*", Small **21**, 2501075 (2025).
- S. Nakata, M. Bejas, J. Okamoto, K. Yamamoto, D. Shiga, R. Takahashi, H. Y. Huang, H. Kumigashira, H. Wadati, J. Miyawaki, S. Ishida, H. Eisaki, A. Fujimori, A. Greco, H. Yamase*(山瀬博之), D. J. Huang, and H. Suzuki* (鈴木博人), "*Out-of-phase Plasmon Excitations in the Trilayer Cuprate $Bi_2Sr_2Ca_2Cu_3O_{10+\delta}$*", Phys. Rev. B **111**, 165141 (2025).
- J. Okamoto, G. Shibata, Y. S. Ponosov, H. Hayashi, K. Yamaura, H. Y.Huang, A. Singh, C. T. Chen, A. Tanaka, S. V. Streltsov*, D. J. Huang*(黃迪靖), and A. Fujimori*(藤森淳), "*Spin-orbit-entangled State of Ba_2CaOsO_6 Studied by O K-edge Resonant Inelastic X-ray Scattering and Raman Spectroscopy*", npj Quantum Mater. **10**, 44 (2025).
- C. S. Pathiraja, J. N. Ranhili, D. Wong, C. Schulz, Y.-D. Chuang, Y.-C. Shao, D.-J. Huang, H.-Y. Huang, A. Singh, and B. Freelon*, "*Electronic Energy Scales of CrX_3 (X=Cl, Br, and I) Using High-resolution X-ray Scattering*", Phys. Rev. Res. **7**, 043139 (2025).
- A. Singh, H. Y. Huang, K. Tsutsui, T. Tohyama, S. Komiya, J. Okamoto, C. T. Chen, A. Fujimori, and D. J. Huang*(黃迪靖), "*Bimagnon Dispersion of La_2CuO_4 Probed by Resonant Inelastic X-ray Scattering*", Sci. Rep. **15**, 34183 (2025).
- Z. Wang, Y. Guo, H.-Y. Huang, F. Xie, Y. Huang, B. Gao, J. S. Oh, H. Wu, J. Okamoto, G. Channagowdra, C.-T. Chen, F. Ye, X. Lu, Z. Liu, Z. Ren, Y. Fang, Y. Wang, A. Biswas, Y. Zhang, Z. Yue, C. Hu, C. Jozwiak, A. Bostwick, E. Rotenberg, M. Hashimoto, D. Lu, J. Kono, J.-H. Chu, B. I. Yakobson, R. J. Birgeneau, G.-H. Cao, A. Fujimori, D.-J. Huang*(黃迪靖), Q. Si*(斯其苗), M. Yi*, and P. Dai*(戴鵬程), "*Spin excitations and flat electronic bands in a Cr-based kagome superconductor*", Nat. Commun. **16**, 7573 (2025).
- Z. Zhang, Y. Li, X. Shen, L. Yang, C. Zhang, Y. Liu, B. Wang, C.-Y. Kuo, S.-C. Haw, C.-T. Chen, C.-W. Pao, H.-Y. Huang, D.-J. Huang, J. Ju, J. Ma, Z. Hu, Y. Gao*(高玉瑞), X. Wang*(王雪鋒), R. Yu, Z. Wang*(王兆翔), and L. Chen, "*Breaking the Vicious Spiral to Suppress Oxygen Loss in Li-rich Oxide Cathode Materials*", Adv. Mater. **37**, 2505724 (2025).

TPS 44A Quick-scanning X-ray Absorption Spectroscopy

- S. A. Ahmed, T. Agnihotri, A. Ranjan, C.-Y. Chang, C.-C. Chang, R. Hasan, Y. Nikodimos, T. M. Hagos, S.-H. Wu*(吳溪煌), W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Boosting Stability in Ni-rich Cathodes: a Synergistic Approach to Surface and Bulk Modifications for Advanced Lithium-ion Batteries*", J. Mater. Chem. A **13**, 14846 (2025).
- S. S. S. Ali, S. A. Khan, Y.-T. Tsai, C.-H. Lee, Y.-F. Song, G.-C. Yin, C.-K. Chang, Y.-C. Chuang, S.-J. Huang, C.-W. Pao, T.-Y. Chen, and M.-H. Fang*(方牧懷), "*Supersaturation-driven Co-precipitation Enables Scalable Wet-chemical Synthesis of High-purity Na_3InCl_6 Solid Electrolyte for Sodium-ion Batteries*", Small **21**, e09165 (2025).

- G. Cai, G. Zhang, Y. Li, L. Wang, S. Xie, J. Zhang, Y.-R. Lu, T.-S. Chan, X. Kong, X. Wu, S. Jin*(金松), J. Lu*(路軍嶺), and H. Ji*(季恒星), "*Structural Sensitivity of Atomically Dispersed Catalysts in Electrocatalytic Reactions for Lithium-sulfur Batteries*", Adv. Funct. Mater. **35**, 2501600 (2025).
- C.-W. Chang, Y.-C. Ting, F.-Y. Yen, G.-R. Li, K.-H. Lin*(林昆翰), and S.-Y. Lu*(呂世源), "*High Performance Anion Exchange Membrane Water Electrolysis Driven by Atomic Scale Synergy of Non-precious High Entropy Catalysts*", Energy Mater. **5**, 500117 (2025).
- K.-P. Chang, Z. X. Law, C.-B. Du, C.-W. Pao, T.-Y. Chen, and D.-H. Tsai* (蔡德豪), "*Methane-steam Reforming for Low-carbon Hydrogen Production Using Ni-Pd Bimetallic Nanoparticle Cluster*", Fuel **399**, 135683 (2025).
- C. Chen, Z. Xu, G. Hai*(海廣通), W.-H. Huang*(黃偉翔), C.-W. Pao, H. Li, K. Jiang, N. Zhang*(張楠), and T. Liu*(劉天西), "*Tailoring the d-band Center of High-entropy Perovskite Oxide Nanotubes for Enhanced Nitrate Electroreduction*", Small **21**, 2407964 (2025).
- C.-S. Chen*(陳敬勳), T.-C. Chen, K.-L. Chiu, C.-R. Hsing, L.-Y. Wang, C.-M. Yang, C.-W. Pao, and C.-L. Chen, "*Highly Active Cu-embedded in Magnetic Carbon Nanofibers for the Reduction of 4-nitrophenol*", Chem. Eng. J. **505**, 159103 (2025).
- D. Chen, Y. Cai, Y. Xiao, C. Wang, Y. Li, K. Ma, D. Xiao, H.-T. Wang, C.-F. Lee, L. Zhang, H. Ishii, Y.-C. Shao, N. Hiraoka, L. Han*(韓麗麗), X. Liu*(劉學明), and H. L. Xin, "*Electrosynthesis of Urea on High-density Ga-Y Dual-atom Catalyst via Cross-tuning*", Adv. Mater. **37**, 2420593 (2025).
- J. Chen, F. Xue, H. Peng, C.-W. Pao, W.-H. Huang, Z. Hu, Y. Xu*(徐勇), and X. Huang*(黃小青), "*Highly Efficient Photocatalytic H_2O_2 Production under Ambient Conditions via Defective In_2S_3 Nanosheets*", Langmuir **41**, 1149 (2025).
- J. Chen, W. Zhu, M. Zhang, H. Yang, M. Ma, J. Wu, P. Li, D. Gao, Q. Wang, W.-H. Huang, C.-W. Pao, Z. Hu*(胡志偉), Z. Kang*(康振輝), M. Shao* (邵名望), and Q. Shao*(邵琪), "*A New Phase Indium Tin Oxide (ITO) Activated Selective CO_2 Reduction into Formate for Underwater Antifouling Glass*", Angew. Chem. Int. Edit. **64**, e202513052 (2025).
- K.-C. Chen, M.-H. Huang, W.-T. Huang, M. Kaminski, D.-H. Cherng, K.-M. Lu, G. Leniec*, S. Mahlik*, and R.-S. Liu*(劉如熹), "*Tuning Shortwave Infrared Emission Wavelengths by Chemical Pressure in Cr^{3+},Ni^{2+} Co-doped Spinel Phosphors*", Adv. Opt. Mater. **13**, 2500393 (2025).
- M.-Y. Chen, Y.-T. Liu, L.-C. Hsu, Y. W. Cheng, and K. H. Ng*, "*Sub-boiling Hydrothermally Synthesized 2D Ni-catalyst Supported on KCC-1 for a Sustainable Dry Reforming of Methane: 1000h-longevity Reaction and Operando Insight on Its Activity Restoration Under N_2-blanket*", Int. J. Hydrogen Energ. **127**, 913 (2025).
- T.-H. Chen, C.-S. Ni, C.-Y. Lai, S. Gull, Y.-C. Chu, W.-Y. Jao, C.-C. Hu, S.-F. Liu, C.-C. Chi, T.-Y. Chen, J.-F. Lee, C.-W. Pao, J.-L. Chen, H.-Y. Chen*(陳翰儀), and J.-H. Huang*(黃金花), "*Enhanced Oxygen Evolution and Power Density of Co/Zn@NC@MWCNTs for the Application of Zinc-air Batteries*", J. Colloid Interf. Sci. **679**, 119 (2025).
- Y. Chen, Z. Tang, Z. Liu, W.-H. Huang, M.-H. Yeh, C.-W. Pao, H. Tao, M. Xu, Z. Dong, L. Yuan, M. Pu*, B. Li, G. Yang, Y. Guo, Z. Hu, and Y. Zhu*(朱印龍), "*Toward the Ideal Alkaline Hydrogen Evolution Electrocatalyst: a Noble Metal-free Antiperovskite Optimized with A-site Tuning*", Adv. Mater. **37**, 2504607 (2025).
- Y. Chen, Z. Liu, B. Chen, W.-H. Huang, Z. Tang, M. Xu, M.-H. Yeh, C.-W. Pao, M. Pu*, G. Yang, Y. Guo, Z. Hu, and Y. Zhu*(朱印龍), "*A-site Cation Deficiency in Antiperovskites for Precisely Accelerating the Volmer Step of Alkaline Hydrogen Evolution*", Adv. Energy Mater. **15**, e03319 (2025).
- Y.-C. Chen, Y.-S. Liao, P.-H. Chen, J.-P. Chou, C.-K. Tsai, Y.-D. Lin, Y.-G. Lin, Y.-R. Peng, and J. M. Wu*(吳志明), "*Direct and Sustainable Ammonia Synthesis from Air and Water with Sulfur-deficient MoS_2 Piezocatalysts*", ACS Nano **19**, 36602 (2025).
- Z. Chen, G. Zhang, H. Yang, Y. Zhao, A. Pei, P. Wang, J. Yang, J. Zhang, P. Sun, H. Qin, J. Zhan, J. Peng, W.-H. Huang, L. Zhou, and G. Chen*(陳光需), "*$LiCoO_2$-derived Ni-doped Catalysts for Electrochemical Upcycling of Polyethylene Terephthalate Waste to Formic Acid*", ACS Nano **19**, 26572 (2025).
- Z. Chen, Y. Xiao, X. Qiao, H. Ou*(歐鴻輝), C.-F. Lee, H.-T. Wang, Y.-C. Shao, and L. Han*(韓麗麗), "*Monitoring Chalcogenide Ions-guided in Situ Transform Active Sites of Tailored Bismuth Electrocatalysts for CO_2 Reduction to Formate*", P. Natl. Acad. Sci. USA **122**, e2420922122 (2025).
- L. Cheng, Y. Zhou, L. Luo*(羅凌虹), L. Wang*(王樂瑩), X. Xu, D. Guan, W.-H. Huang, C.-W. Pao, Z. Hu, J. Zhou, S. Wang, and Z. Shao*(邵宗平), "*Mutual Dissolution and Exsolution Enables Superior Coking Resistance of Cermet Fuel Electrode*", Chem. Eng. J. **505**, 159587 (2025).
- Y. Cheng, Y. Zhang, W. Guan, S. Zhu, C. Zhang*(張呈旭), L. Han*(韓麗麗), and J. Hu*(胡覺), "*Axial Coordination Engineering of FeNi Catalysts for Oxygen Evolution Reaction*", J. Colloid Interf. Sci. **698**, 138096 (2025).
- I.-C. Chiu*(邱奕嘉), C.-Y. Chiang, H.-Y. Chang, C.-T. Li, H.-Y. Chi, H.-C. Huang, Paichun Chang, Y.-T. Wang, Ray Lee, I.-Y. Tsao, C.-L. Chiang, Bor Kae Chang*(張博凱), Y.-G. Lin*(林彥谷), and Wei Hsuan Hung*(洪緯璿), "*Advanced High Entropy Oxides for Seawater Splitting*", Sustain. Mater. Technol. **45**, e01515 (2025).
- J. Cong, Z. Hu, L. Hu, T. Li, H. Ji, Z. Long, Y. Fan, Z. Wen, Y.-C. Lin, H. Xu, Z. Li, S. Li*(李舜寧), F. Pan, and Y. Huang*(黃云輝), "*Electrolyte Engineering with Asymmetric Spatial Shielding Effect for Aqueous Zinc Batteries*", Adv. Funct. Mater. **35**, 2424423 (2025).
- Y. Cui, Y. Liu, J. Li, H. Ma, T. Pan, H. Wei, X. Shi, X. Zhou, P. Zhang, W. Niu, S. Sun, M. Yang, W.-H. Huang*(黃偉翔), J. Ma, and H. Cheng*(程洪飛), "*Synthesis of MnM-NC (M=Ga, In, Sn) Dual-singleatom Catalysts for Efficient Electrocatalytic Oxygen Reduction*", J. Mater. Chem. A **13**, 34447 (2025).
- T. Dey, A. Yadav, N. Seal, B. M. Matsagar, N. C.-R. Chen, P. Yadav, K. C.-W. Wu*(吳嘉文), A. Bano*, and S. Dutta*, "*Single-atomic Ni-N_4 Biofuel Cell for Mimicking Intramolecular Electron-harnessing of Laccase*", Angew. Chem. Int. Edit. **64**, e202511892 (2025).
- F. Dou, Y. Chang, Y. Zhang, Q. Li, T.-Y. Chen, Y. Yan, Y. Sun, X. Guo, C. Yin, H. Zhou, H.-Y. Chen, and H. Pang*(龐歡), "*Improving Electron and Ion Transport in Nano-Si Anodes through Integration with Conductive Nano-metal-organic Frameworks*", Nano Lett. **25**, 8915 (2025).
- S. Duan, H. Li, Z. Huang, L. Guan, T. Zhu*(朱挺), W.-H. Huang*(黃偉翔), C.-C. Chang, M.-H. Yeh, N. Zhang*(張楠), and T. Liu*(劉天西), "*Regulating d-band Center in Pt-Pd Metallene Aerogels for Enhanced Electrochemical Ethanol Reforming to Hydrogen*", Inorg. Chem. **64**, 22132 (2025).
- Y. Fan, J. Zhao, J. Zhou, W.-H. Huang, J. Zhu, C.-Y. Kuo, S. Zhang, C.-W. Pao, T.-S. Chan, Y. Zhang, S.-Y. Hsu, J.-M. Chen, C.-T. Chen, C. Jin, L. H. Tjeng, J.-Q. Wang*(王建強), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Self-assembled Metal Cluster/Perovskite Catalysts for Efficient Acidic Hydrogen Production with an Ultra-low Overpotential of 62 mV and Over 1500 Hours of Stability at 1 A cm^{-2}*", Energ. Environ. Sci. **18**, 7527 (2025).
- M. Goto*(後藤真人), K. Sato, W.-T. Chen, W.-H. Huang, and Y. Shimakawa* (島川祐一), "*Robust Unusually High Valence Fe^{5+} State and Large Magnetic Interaction Change in the Double Perovskites $La_{2-x}Ca_xLiFeO_{6-0.5x}$*", Chem. Mater. **37**, 2008 (2025).
- D. Guan, H. Xu, Y.-C. Huang, C. Jing, Y. Tsujimoto, X. Xu, Z. Lin, J. Tang, Z. Wang, X. Sun, L. Zhao, H. Liu, S. Liu, C.-T. Chen, C.-W. Pao, M. Ni, Z. Hu* (胡志偉), and Z. Shao*(邵宗平), "*Operando Studies Redirect Spatiotemporal Restructuration of Model Coordinated Oxides in Electrochemical Oxidation*", Adv. Mater. **37**, 2413073 (2025).
- L. Guan, Z. Huang, T. Zhu*(朱挺), Z. Wang, W.-H. Huang*(黃偉翔), C.-C. Chang, M.-H. Yeh, S. Osella, N. Zhang*(張楠), and T. Liu*(劉天西), "*Phase-controlled Pd-S Nanosheet Aerogels for Electrocatalytic Upgrading of Waste Plastics*", Adv. Funct. Mater. **35**, 2500254 (2025).
- A. G. Hailemariam, M. Qorbani*, T. T. Mamo, R. Putikam, C.-Y. Huang, K. S. Bayikadi, H.-L. Wu*(吳恆良), M.-C. Lin, L.-C. Chen*(林麗瓊), and K.-H. Chen*(陳貴賢), "*Improved Electrochemical Kinetics and Rate Performance of Lithium-ion Batteries by $Li_2FeS_{2-x}F_x$ Cathode Materials*", Commun. Mater. **6**, 143 (2025).
- Y. Hao, L. Wang, H. Huang, H. Zhou, G. Xing, D. Ji, T. Zhang, A. Huang, A.-Y. Wang, X.-R. Chen, T.-Y. Chen, H.-Y. Chen, S. Ramakrishna, and S. Peng* (彭生杰), "*Interfacial Water Orientation in Neutral Oxygen Catalysis for Reversible Ampere-scale Zinc-air Batteries*", Angew. Chem. Int. Edit. **64**, e202421640 (2025).
- Y. He, S. Xiong, Z. Huang, G. Qi, X. Li, X. Liu, J. Xu, D. Su, Z. Hu, W.-H. Huang, C.-W. Pao, S. Yang, M. Chen, Y. Xu*(徐勇), and X. Huang*(黃小青), "*Ultradurable Regenerative Propane Dehydrogenation Catalyst by Fluorination-induced Confining and Positioning*", J. Am. Chem. Soc. **147**, 38404 (2025).
- T.-E. Ho, Y.-C. Chang, P.-E. Wang, S.-Y. Yuan, L.-M. Lyu, C.-S. Li, J.-L. Chen, and C.-H. Kuo*(郭俊宏), "*Boosting H_2 Evolution from Thermal NH_3 Decomposition by the Catalyst of Ru Quantum Dots on Mesoporous MgO Dendrite Networks*", ACS Sustain. Chem. Eng. **13**, 10563 (2025).
- J. Hou, T.-Y. Chen, M. A. Tamerd, J. Liu, W.-H. Huang, M. Hadouchi, Y. Zhu, X. Shi, S. Guo, M. Yang, Y. Shi, M. Tang, and J. Ma*(馬吉偉), "*Activating Fast and Reversible Sodium Storage in NASICON Cationic Defect Sites Through Fluorine Doping*", Nat. Commun. **16**, 2910 (2025).
- C.-C. Hsu, S.-T. Hu, H.-Y. Liu, C.-S. Ni, A.-Y. Wang, H.-J. Chen, T.-Y. Chen, Y.-L. Chen, L.-Y. Chueh, Y.-T. F. Pan, T.-Y. Liu*(劉姿吟), and H.-Y. Chen* (陳翰儀), "*Iron- and Nitrogen-modified Trapa Natans Husk-derived Activated Carbon as Cathode Materials for Microbial Fuel Cells*", J. Power Sources **632**, 236269 (2025).
- T.-H. Hu, C.-Y. Wu, Z. Y. He, Y. Chen, L.-C. Hsu, C.-W. Pao, J.-T. Lin, C.-W. Chang, S.-C. Lin, R. Osmundsen, L. Casalena, K. H. Lin, S. Zhou, and T.-H. Yang*(楊東翰), "*Unconventional Hexagonal Close-packed High-entropy Alloy Surfaces Synergistically Accelerate Alkaline Hydrogen Evolution*", Adv. Sci. **12**, 2409023 (2025).

- C.-Y. Huang, H.-A. Chen, W.-X. Lin, K.-H. Chen, Y.-C. Lin, T.-S. Wu, C.-C. Chang, C.-W. Pao, W.-T. Chuang, J.-C. Jan, Y.-C. Shao, N. Hiraoka, J.-W. Chiou, P.-C. Kuo, J. Shiue, D. Vishnu S. K, R. Sankar, Z.-W. Cyue, W.-F. Pong*(彭維鋒), and C.-W. Chen*(陳俊維), "*In Situ Identification of Spin Magnetic Effect on Oxygen Evolution Reaction Unveiled by X-ray Emission Spectroscopy*", J. Am. Chem. Soc. **147**, 13286 (2025).
- J.-F. Huang*(黃景帆), L.-J. Chen, B.-Z. Yang, and J.-L. Chen, "*Spontaneous Deposition of High-density Pt Single Atoms on Oxides via Charge Polarization Between Oxides and Carbon*", J. Mater. Chem. A **13**, 13734 (2025).
- J.-Y. Huang, K. Iputera, Y.-T. Lin, Y.-T. Hung, Y.-S. Liu, Y.-P. Chang, B. Bazri, B.-H. Liu, D.-H. Wei*(魏大華), B.-Y. Jin*(金必耀), and R.-S. Liu*(劉如熹), "*Exploring Dehydration Mechanisms and Conductivity Optimization in $Li_3InCl_6.xH_2O$ via in Situ Synchrotron Techniques*", J. Mater. Chem. A **13**, 2895 (2025).
- J.-Y. Huang, Y.-C. Wen, Y.-T. Lin, P.-J. Chu, Y.-S. Liu, H.-Z. Wang, Y.-P. Chang, Y.-T. Hung, D.-H. Wei*(魏大華), B.-Y. Jin*(金必耀), and R.-S. Liu*(劉如熹), "*Multifunctional Dual-doping Strategy Improving Halide-based Solid-state Electrolyte*", Adv. Energy Mater. **15**, e03135 (2025).
- T.-F. Huang, K.-J. Lin, Y.-R. Zhuang, Y.-E. Sun, W.-C. Lin, C.-H. Li, C.-C. Lin, E.-C. Chang, C.-L. Chang, Y.-C. Liu, L.-Y. Hsu, B.-H. Li, W.-L. Chang, P. Pimbaotham, C.-Y. Bai, W.-H. Huang, D. C. K. Hoang, K. D. G. Huynh, Y.-C. Huang, C.-Y. Chung, M. M. Elsenety, C.-A. Chang, H.-N. Huang, S. Jungsuttiwong, C.-W. Pao, H.-L. Chen, T.-L. Wu, C.-C. Chang, B.-H. Chen, S.-D. Yang, K.-H. Lin*(林昆翰), and H.-H. Chou*(周鶴修), "*Flexible, Nonfused Sulfone Functionalized Polymer with Enhanced Active Site Access for Photocatalytic Sacrificial Hydrogen Evolution*", Sci. Adv. **11**, eadx1629 (2025).
- Z. Huang, T. Zhu*(朱挺), H. Fu, L. Guan, H. Li, W.-H. Huang*(黃偉翔), M.-H. Yeh, N. Zhang*(張楠), and T. Liu*(劉天西), "*Lattice-strained Pd@Pd-Cu Core-shell Metallene Aerogels for Electrocatalytic Acetonitrile to Ethylamine*", Small **21**, e10244 (2025).
- P. Jiang, M. A. Tamerd, W.-H. Huang, M. Yang, Z. Xie*(謝正坤), and J. Ma*(馬吉偉), "*Rational Defect and Fluorine Chemistry in Tin Oxide Enables Reversible Na Intercalation with a Stable NaF-rich SEI Formation*", Small **21**, e06470 (2025).
- J.-W. Kang, H.-C. Cheng, H.-J. Chen, S.-C. Huang, C.-H. Lee, C.-L. Kuo, S.-Y. Yu, H.-L. Wu, C.-C. Lin, C.-H. Kuo, H.-H. Chang, C.-W. Hu, S.-C. Haw*(何樹智), H.-Y. T. Chen*(陳馨怡), and H.-Y. Chen*(陳翰儀), "*P_2-$Na_{0.61}Ca_{0.03}[Mg_{2/9}Cu_{1/9}Mn_{2/3}]O_2$ as a High-energy Oxygen Redox Cathode for Na-ion Batteries: Investigation of Cu Substitution and Ca Doping to Enhance Cycling Stability*", Adv. Funct. Mater. **35**, 2504642 (2025).
- I.-T. Kao, R.-T. Kuo, S.-C. Lin, Y.-S. Tsai, L.-Y. Chueh, C.-W. Chang, K.-F. Lee, L.-C. Hsu, J.-T. Lin, C.-Y. Wu, C.-W. Pao, Y.-T. F. Pan, H.-K. Tian*(田弘康), and T.-H. Yang*(楊東翰), "*Exploring a Bimetallic Catalyst Family for Hydrogen Oxidation with Insights into Superior Activity and Durability*", Nat. Commun. **16**, 10504 (2025).
- P. Kumar, H. Zhang, A. G. Yohannes, J. Wang, A. S. Zeraati, S. Roy, X. Wang, K. Kannimuthu, A. M. Askar, K. A. Miller, K. Ling, M. Adnan, S.-F. Hung, J.-J. Ma, W.-H. Huang, D. Trivedi, M. Molina, H. Zhao, A. A. Martí, A. F. G. Leontowich, G. K. H. Shimizu, D. Sinton, M. M. Adachi, Y. A. Wu, P. M. Ajayan, S. Siahrostami*, J. Hu*(胡勁光), and M. G. Kibria*, "*Isolated Iridium Oxide Sites on Modified Carbon Nitride for Photoreforming of Plastic Derivatives*", Nat. Commun. **16**, 2862 (2025).
- C.-H. Kuo, P.-Y. Huang, A.-Y. Wang, H.-Y. Liu, H.-C. Cheng, C.-H. Lee, C.-R. Hsing, S.-Y. Chen, C.-H. Yeh, H.-J. Chen, H. Chen, W. Yin, J. Wu, C.-W. Pao, W. H. Kan*(簡宏希), H.-Y. T. Chen*(陳馨怡), and H.-Y. Chen*(陳翰儀), "*A Medium-entropy Garnet-type Oxide as a Solid Electrolyte with Enhanced Air Stability for Li-ion Batteries*", J. Mater. Chem. A **13**, 8608 (2025).
- J.i Li, X. Yu, W.-H. Huang, Q. Zhang, K. Wei, X. Zhou, Y. Zhu, X. Zhong, M.-H. Yeh, N. Alonso-Vante, and J. Ma*(馬吉偉), "*Multi-step Screening-guided Core-shell RuO_2@TaO_x Nanorods Electrocatalyst for Acidic Oxygen Evolution Reaction*", Angew. Chem. Int. Edit. **64**, e202511750 (2025).
- J. Li, Y. Zhu, C. Li, Q. Zhang, J. Rong, S. Guo, N. Alonso-Vante, L. Yang, M.-H. Yeh, W.-H. Huang*(黃偉翔), X. Yu*(于曉華), H. Cheng*(程洪飛), and J. Ma*(馬吉偉), "*Boosting and Stabilizing Oxygen Evolution Reaction through Ru Single Atoms Anchored Amorphous $NiMoO_x$ Electrocatalyst*", Nat. Commun. **16**, 8827 (2025).
- M. Li, J. Yang, S. Li, L. Deng, S. Zhao, L. Li*(李林林), S.-F. Hung, G. Xing, T. Wang, Y. Liang, J. Ren, Y. Wu, and S. Peng*(彭生杰), "*Rare-earth-induced Intermediate-spin Co Centers in $MnCo_2O_{4.5}$ for Sustainable Acidic Water Oxidation*", J. Am. Chem. Soc. **147**, 45680 (2025).
- S. Li, S. Zhao, S.-F. Hung, L. Deng, L. Wang, F. Shi, A. Dong, Y. Zhang, T.-Y. Chen, F. Hu, L. Li, S. Ramakrishna, Y. Wu, and S. Peng*(彭生杰), "*Oxophilic Sites Mediated Dynamic Oxygen Replenishment to Stabilize Lattice Oxygen Catalysis in Acidic Water Oxidation*", J. Am. Chem. Soc. **147**, 33770 (2025).
- S. Li, Y. Li, Z. Zhang, X. Shen, H. Ji, Z. Liu, Z. Hu, H. Wang, H. Yu, Z. Hu, S.-C. Haw, C.-T. Chen, Q. Kong, Y. Gao*(高玉瑞), X. Wang*(王雪鋒), R. Yu*(禹日成), Z. Wang*(王兆翔), and L. Chen, "*Interplays Between TM Migration, Cation Mixing and Oxygen Defects and Their Impacts on Degradation of Layer-structured Oxide Cathode Materials*", Energy Storage Mater. **79**, 104337 (2025).
- W.-H. Li, L.-C. Hsu, H.-Y. Chen, Y.-C. Chen, H. Y. Teah, Y.-Y. Kung, Y.-M. Tzou, and Y.-T. Liu*(劉雨庭), "*Hybridizing Mg-Fe Layered Double Hydroxide with Pectin Natural Polymer for Organic Ligand-responsive Phosphate Release: An Innovative Controlled-release Phosphorus Fertilizer*", J. Agr. Food Chem. **73**, 7131 (2025).
- Y. Li, L. Lu, X. Jiang, D. Yang, J.-L. Chen, A. D. Chowdhury, W. Li*(李武), X. Pei*(裴響林), and A. Lei*(雷愛文), "*Dynamic Boron-doping Switched Chitin-based Single-atom Pt Catalyst for Chemo-selective Hydrogenation*", Nat. Commun. **16**, 2296 (2025).
- C.-H. Liao, Y.-T. Weng, S.-K. Parthasarathi, H. Chen, S.-J. Chang, G.-Y. Liu, T.-Y. Yu, C.-W. Pao, T.-S. Chan, W.-T. Chuang, C.-C. Wang, R.-J. Jeng, and N.-L. Wu*(吳乃立), "*A Li-ion Permeable Poly(Phenylene Ether-ether-Sulfone) Interphase to Address Interfacial Instability and Structural Degradation of Ni-rich NCM Cathodes in Poly(Ethylene Oxide)-based All-solid-state Li-ion Batteries*", Chem. Eng. J. **523**, 168677 (2025).
- C. Lin, T.-Y. Chen, T. Zhou, Y. Wu, C. K. T. Wun, W. Chen, H.-Y. Chen, V. Tung, Z. Guo, T. W. B. Lo*(勞子桓), L. Cai*(蔡亮), Y. Deng*(鄧意達), and P. C. Y. Chow*(周慈勇), "*Regulating the Oxygen Evolution Mechanism Through In Situ Reconstruction of Ru-modified Manganese Oxybromide*", ACS Energ. Lett. **10**, 2641 (2025).
- C.-Y. Lin, Z. Y. He, J.-T. Lin, C.-W. Chang, Y.-C. Hsiao, S.-C. Lin, Y. Chen, Y.-M. Huang, S.-C. Lee, C.-W. Pao, K.-H. Lin, A. J. Cowan, and T.-H. Yang*(楊東翰), "*Atomically Mixed High-entropy-alloy Nanoframes with 3D Subnanometer-thick Electrocatalytic Surfaces*", Adv. Funct. Mater. **35**, 2505927 (2025).
- J. Lin, J. Yang, T. Li*(李坦), S. Zhao, W.-H. Huang, C.-L. Chen, Y. Zhao, S. Liu, L. Gu, L. Yang, Y. Qiu, and G. Chen*(陳光需), "*Surface Structure Engineering of PtCu Clusters Enhances the Performance of Propane Dehydrogenation*", Nano Res. **18**, 94907357 (2025).
- Z.-H. Lin and Y.-C. Wu*(吳毓純), "*Capping Stabilization Mechanism of Vanadate-stabilized δ-Bi_2O_3: Experimental and Theoretical Approaches*", Prog. Solid State Ch. **80**, 100549 (2025).
- H.-W. Liu, H. Chen, S. Thi, P.-J. Yu, J.-L. Chen, C.-W. Pao, P.-Y. Chang, S.-C. Haw, Y.-F. Liao, Y.-C. Shao, G.-C. Yin, Y.-F. Song, S.-K. Parthasarathi, Y.-T. Weng, and N.-L. Wu*(吳乃立), "*High-capacity Ni-rich Composite Cathodes Having Chemically Fused Interface with Li_3InCl_6 Electrolyte Towards Low-pressure Operating All-solid-state Li-ion Batteries*", Compos. Pt. B-Eng. **293**, 112133 (2025).
- J. Liu, Y. Wen, W. Yan, Z. Huang, X. Liu, X. Huang, C. Zhan, Y. Zhang, W.-H. Huang, C.-W. Pao, Z. Hu, D. Su, S. Xie, Y. Wang, J. Han*(韓佳甲), H. Xiong*(熊海峰), X. Huang*(黃小青), and N. Chen*(陳南君), "*Single-atom Mediated Crystal Facet Engineering for the Exceptional Production of Acetate in CO Electrolysis*", Energ. Environ. Sci. **18**, 4396 (2025).
- L. Liu, Y. Yang, C. Zhan, Z. Huang, J. Xia, W.-H. Huang, C.-W. Pao, Z. Hu, W. Liu, N. Chen*(陳南君), and X. Huang*(黃小青), "*Geometrically Ordered Triangular-atom-unit Zn-PtCo Intermetallic for Highly Efficient and Durable Fuel Cells*", Nano Lett. **25**, 16203 (2025).
- R. Liu, W. Tu, A. Pei*(裴安), W.-H. Huang, Y. Jia*(賈妍艷), P. Wang, D. Liu, Q. Wu, Q. Qin, W. Zhou, L. Zhou, K. Yan, Y. Zhao*(趙云), and G. Chen*(陳光需), "*Low-voltage Electrooxidation of Benzyl Alcohol to Benzoic Acid Enhanced by PtZn-ZnO_x Interface*", J. Am. Chem. Soc. **147**, 10339 (2025).
- S. Liu, X. Wang, W.-H. Huang, Q. Zhang, J. Han, Y. Zhang, C.-W. Pao, Z. Hu, Y. Xu*(徐勇), and X. Huang*(黃小青), "*Solvation Effect-determined Mechanisms of Cation Exchange Reactions for Efficient Multicomponent Nanocatalysts*", Angew. Chem. Int. Edit. **64**, e202418248 (2025).
- S. Liu, S. Liu, J. Bao, Z. Huang, L. Wei, N. Chen, Z. Hu, W.-H. Huang, C.-W. Pao, Q. Kong, J. Han*(韓佳甲), L. Li*(李雷剛), and X. Huang*(黃小青), "*Optimized Adsorption of H_{ad} and OH_{ad} over Amorphous $SrRuPtO_xH_y$ Nanobelts towards Efficient Alkaline Fuel Cell Catalysis*", Angew. Chem. Int. Edit. **64**, e202421013 (2025).
- S. Liu, S. Liu, T. Mao, Q. Yu, W.-H. Huang, C.-W. Pao, Z. Hu, Q. Kong, J. Zhang, X. Huang*(黃小青), and Y. Li*(李云華), "*Synergistic Amorphous IrO_x and Crystalline RuO_2 Nanodomains for Efficient Acidic Oxygen Evolution Reaction*", AICHE J. **71**, e70060 (2025).
- Z. Liu, R. Qiao, D. Feng, J. Zhou, H. Di, Y. Bai, D. Liu, N. Shi, W.-H. Huang, M.-H. Yeh, C.-W. Pao, Z. Hu, G. Yang*(楊廣明), Y. Lin*(林雨瀟), Z. Luo, R. Ran, W. Zhou, Y. Zhu, and Z. Shao*(邵宗平), "*Strategic Atomic Trapping at Heterointerfaces for Protonic Ceramic Cells*", Nat. Commun. **16**, 10405 (2025).
- W.-H. Lu, Y.-L. Chen, T.-Y. Chen, H.-H. Chang, H.-L. Chen, A.-Y. Wang, T.-C. Wu, P.-I. Wei, I.-S. Wang, W. K. Pang*, and H.-Y. Chen*(陳翰儀), "*High-entropy NASICON-type $Li_{1.3}Al_{0.4}Ti_{0.5}Zr_{0.5}Sn_{0.5}Ta_{0.1}(PO_4)_3$ with High*

Electrochemical Stability for Lithium-ion Batteries", J. Colloid Interf. Sci. **684**, 109 (2025).

- L.-M. Lyu, Y.-C. Chang, H.-J. Li, P.-E. Wang, R.-H. Juang, M.-Y. Lu, C.-S. Li, and C.-H. Kuo*(郭俊宏), "*Turning the Surface Electronic Effect Over Core-shell CoS_2-$Fe_xCo_{1-x}S_2$ Nanooctahedra Toward Electrochemical Water Splitting in the Alkaline Medium*", Adv. Sci. **12**, 2411622 (2025).
- N. A. R. C. Mohamad, K. Chae, Q. Zhou, W.-T. Huang, H. J. Lee, J. Son, J. Moon, Y. Bu, F. Gong*(鞏峰), R.-S. Liu*(劉如熹), J. Kim*, and D. H. Kim*, "*Plasmon-driven Reorientation of Interfacial Water for Wastewater Electrolysis with Light-emitting Diode Illumination*", Adv. Sci. **12**, e07147 (2025).
- L. T. Ngo, Y.-T. Huang, C.-C. Chang, H. Verma, Y.-H. Lin, C.-T. Kuo, Y.-C. Liao, C.-C. Kaun*(闞肇正), R.-J. Chung*(鍾仁傑), and R.-S. Liu*(劉如熹), "*High-efficiency and Ultrastable Solvent-free Curable Perovskite Quantum Dot Inks for MicroLED and LED Backlighting Applications*", Nano Energy **142**, 111230 (2025).
- G. Y. Nigussie, Y.-F. Tsai, T.-C. Yang, C.-M. Yang*(楊家銘), and S. S.-F. Yu* (俞聖法), "*An Efficient H_2O_2-based Propylene to Propylene Oxide (HPPO) Reaction Catalyzed by ZnO/ZnO_2 Materials*", J. Mater. Chem. A **13**, 5261 (2025).
- A. A. Nurpratiwi, A. K. Sharma, C.-W. Chang, C.-W. Pao, W.-H. Huang, and Y.-H. Su*(蘇彥勳), "*Single-atom Cobalt Catalysts Engineered on Tunable CNNO Nanosheets for Hydrogen Generation*", J. Mater. Chem. A **13**, 38807 (2025).
- R. Palani, Y.-S. Wu, S.-H. Wu, J.-K. Chang, R. Jose*, and C.-C. Yang*(楊純誠), "*Cobalt Nanoclusters Deposit on Nitrogen-doped Graphene Sheets as Bifunctional Electrocatalysts for High Performance Lithium-oxygen Batteries*", J. Colloid Interf. Sci. **680**, 845 (2025).
- R. Patil, P. K. Pathak, M. Mishra, B. M. Matsagar, A. Mohini, N. C.-R. Chen, K. C.-W. Wu, A. Bano*, R. R. Salunkhe*, and S. Dutta*, "*Fe-single-atom Incorporated Wood-derived Anode with Fe-N-C/Fe_3C Structural Unit and Hollow Diffusion Sites for Enhanced Sodium-ion Storage*", Small **21**, e07064 (2025).
- A. Pei, R. Xie, L. Zhu*(朱麗華), F. Wu, Z. Huang, Y. Pang, Y.-C. Chang, G. Chai*(柴國良), C.-W. Pao, Q. Gao*(高慶生), C. Shang, G. Li, J. Ye, H. Zhu, Z. Yang, and Z. Guo*(郭正曉), "*Methanol-enhanced Low-cell-voltage Hydrogen Generation at Industrial-grade Current Density by Triadic Active Sites of Pt_1-Pd_n-(Ni,Co)$(OH)_x$*", J. Am. Chem. Soc. **147**, 3185 (2025).
- J. Pimoei, W. Kao-ian, M. Tipplook, T. Katsuya, S. Kamchompoo, S. Jungsuttiwong, J.-L. Chen, C.-W. Pao, P. Kidkhunthod, W. Limphirat, S. Kheawhom, and A. Somwangthanaroj*, "*Advancing Zinc-iodine Battery Performance with MgAl Layered Double Hydroxides on Carbon for Iodine Encapsulation*", J. Energy Storage **112**, 115504 (2025).
- J. A. P. Prada, T. A. H. Navarro, S. L. Chua, A. M. Granados, C.-W. Pao, A. M. Fracaroli*, and N. M. Bedford*, "*Degradation of Glyphosate to Benign N-formyl Glycine Using MOF-808 Nanocrystals*", Angew. Chem. Int. Edit. **64**, e202424540 (2025).
- U. Shashank, T. Tomoda, A. J. Mathew, G. Vashisht, K. Imai, Y. Kusaba, C.-L. Dong, C.-L. Chen, Y. Horibe, M. Ishimaru, H. Awano, H. Asada, and Y. Fukuma*(福間康裕), "*Giant Spin-orbit Torque Induced by Spin Hall Effect in Amorphous Pt(P) Alloys*", NPG Asia Mater. **17**, 15 (2025).
- S. She, C. Chen, K. Fan, G. Chen, Y. Zhu, D. Guan, Y.-C. Huang, H.-C. Chen, Z. Lin, H. F. Wong, L. Li, Y. Zhu, C. W. Leung, Y. H. Tsang*(曾遠康), and H. Huang*(黃海濤), "*Optimizing the Ru Catalyst-support Interaction via Tunnel Size of MnO_2 Support for Enhanced Acidic Water Oxidation*", J. Am. Chem. Soc. **147**, 24392 (2025).
- S. She, H.-C. Chen, C. Chen, Y. Zhu, G. Chen, Y. Song, Y. Xiao, Z. Lin, D. Zu, L. Peng, H. Li, Y. Zhu, Y. H. Tsang*(曾遠康), and H. Huang*(黃海濤), "*Regulating Ru-Ru Distance in RuO_2 Catalyst by Lattice Hydroxyl for Efficient Water Oxidation*", ACS Nano **19**, 18513 (2025).
- X. Shi, W.-H. Huang, J. Rong, M. Xie, Q. Wa, P. Zhang, H. Wei, H. Zhou, M.-H. Yeh, C.-W. Pao, J. Wang, Z. Hu, X. Yu*(于曉華), J. Ma*(馬吉偉), and H. Cheng*(程洪飛), "*Revealing and Modulating Catalyst Reconstruction for Highly Efficient Electrosynthesis of Ammonia*", Nat. Commun. **16**, 6161 (2025).
- P. Srivastava, B. Bazri, D. K. Maurya, Y.-T. Hung, D.-H. Wei*(魏大華), and R.-S. Liu*(劉如熹), "*Green Strategy for Li_2CO_3 Regulation in Garnet-type Solid-state Electrolytes via Acoustic Cavitation*", ACS Energ. Lett. **10**, 10725 (2025).
- J. Tang, D. Guan, H. Xu, L. Zhao, U. Arshad, Z. Fang, T. Zhu, M. Kim, C.-W. Pao, Z. Hu, J. Ge, and Z. Shao*(邵宗平), "*Undoped Ruthenium Oxide as a Stable Catalyst for the Acidic Oxygen Evolution Reaction*", Nat. Commun. **16**, 801 (2025).
- H. Tao, S. Hong, W.-H. Huang, B. Chen, Y. Yang, Z. Dong, M. Xu, B. Li* (李博聞), M.-H. Yeh, C.-W. Pao, Z. Jia, Z. Hu, F. Gong*(鞏峰), Y. Zhu* (朱印龍), and W. Guo, "*Rare-earth Regulated Bond Polarizability in Layered Cuprates for Promoted Surface Reconstruction Toward C_{2+} Electrosynthesis*", Angew. Chem. Int. Edit. **64**, e202518058 (2025).
- C.-Y. Teng, C.-W. Hsu, C.-H. Chang, J.-L. Yang, B.-H. Lin, M.-T. Tang, and Y.-C. Tseng*(曾院介), "*Oxygen Migration Impact on Ferroelectric Evolution in $Hf_{0.5}Zr_{0.5}O_2$ Devices*", Appl. Phys. Lett. **126**, 193502 (2025).
- N. A. T. Than, L. C. Hsu, Y.-H. Chen, K. Huangmee, C.-C. Wang, H. Y. Teah, Y.-M. Tzou, Y.-L. Cho*(卓宴琳), and Y.-T. Liu*(劉雨庭), "*Anaerobic Fe(II) Bio-oxidation by Cyanidiophyceae to Enhance As(III) Removal: A Novel and Efficient Biological Material Toward Resilient Remediation*", Chem. Eng. J. **523**, 168303 (2025).
- N. Q. Thang, A. Sabbah*, R. Putikam, C.-Y. Huang, T.-Y. Lin, M. K. Hussien, H.-L. Wu, M.-C. Lin, C.-H. Lee, K.-H. Chen*(陳貴賢), and L.-C. Chen* (林麗瓊), "*Regulating COOH Intermediate via Rationally Constructed Surface-active Sites of Bi_2WO_6 for Solar-driven CO_2-to-CO Production*", Adv. Funct. Mater. **35**, 2423751 (2025).
- Y.-C. Tseng, S.-H. Chen, K.-Y. Liu, Y.-L. Lai, S.-Y. Lee, C.-S. Wu, K.-W. Wang*(王冠文), and T.-Y. Chen*(陳燦耀), "*Local Synergistic Collaboration Between Metallic Bi Clusters, Oxygen Vacancies, and Cu Atom Enhances the Electrochemical CO_2-to-CH_4 Performance of CuO Nanocatalysts*", Chem. Eng. J. **522**, 167417 (2025).
- J. Wang, M.-T. Liu, C.-S. Hsu, Y.-C. Chu, Y.-F. Liao, C.-W. Pao, T.-S. Chan, W.-T. Chuang, J.-L. Chen, Y.-C. Shao, H. Ishii, N. Hiraoka, C.-Y. Chiang*(蔣慶有), and H. M. Chen*(陳浩銘), "*Resolving Dynamic Behavior of Electrocatalysts via Advances of Operando X-ray Absorption Spectroscopies: Potential Artifacts and Practical Guidelines*", Adv. Mater. **37**, 2418797 (2025).
- J. Wang, H. Y. Tan, C.-S. Hsu, Y.-C. Chu, C.-W. Chan, K.-H. Chen, X.-R. Lin, Y.-C. Lee, H.-C. Chen, and H. M. Chen*(陳浩銘), "*Adapting Atomic Configuration Steers Dynamic Half-occupied State for Efficient CO_2 Electroreduction to CO*", J. Am. Chem. Soc. **147**, 13027 (2025).
- L. Wang, S.-F. Hung, S. Zhao, Y. Wang, S. Bi, S. Li, J.-J. Ma, C. Zhang, Y. Zhang, L. Li*(李林林), T.-Y. Chen, H.-Y. Chen, F. Hu*(胡峰), Y. Wu, and S. Peng* (彭生杰), "*Modulating the Covalency of Ru-O Bonds by Dynamic Reconstruction for Efficient Acidic Oxygen Evolution*", Nat. Commun. **16**, 3502 (2025).
- M. Wang, J. Jia, J. Xia, C.-K. Peng, J. He, Y. Qiu, Y. He, L. Gao, F. Xue, Y.-G. Lin, G. Zhan, Y. Guo*(郭宇錚), X. Huang*(黃小青), and Y. Xu*(徐勇), "*CO_2 Hydrogenation to HCOOH Catalyzed by Aqueous Pd Needle Assembly*", Nat. Commun. **16**, 6454 (2025).
- Q. Wang, J. Chen, S. Chen, D. Zhou, Y. Du, Y. Ji*(紀玉金), Y. Xiong, J. Ke, W. Zhu, Y. Wang, D. Gao, W.-H. Huang, C.-W. Pao, Y. Sun, Y. Li, M. Shao, Z. Hu, X. Huang*(黃小青), and Q. Shao*(邵琪), "*2D Metastable-phase Hafnium Oxide Triggers Hydrogen Spillover for Boosting Hydrogen Production*", Adv. Mater. **37**, 2415978 (2025).
- H. Wei, C. Wang, X. Ye, L. Gao, T. Wang, W.-H. Huang*(黃偉翔), C. Feng* (馮聰), W.-S. Liao, M.-H. Yeh, G.-X. Miao, and J. Fu*(傅婧), "*Surface Electric Field Shielding for Passivation-free Zinc Anode Dissolution in Alkaline Batteries*", Small **21**, 2502237 (2025).
- L. Wei, Y. Dong, W. Yan, Y. Zhang, C. Zhan, W.-H. Huang, C.-W. Pao, Z. Hu, H. Lin, Y. Xu*(徐勇), H. Geng*(耿洪波), and X. Huang*(黃小青), "*Hollow Pt-encrusted RuCu Nanocages Optimizing OH Adsorption for Efficient Hydrogen Oxidation Electrocatalysis*", Angew. Chem. Int. Edit. **64**, e202420177 (2025).
- H.-C. Wu, Y.-W. Huang, Y.-C. Lin, C.-H. Yang, and T.-C. Liu*(劉大中), "*Enhanced Zn/ZnO Heterointerfaces via Pulsed-potential Electrochemical Reconstruction for Highly Selective CO_2 Reduction*", ACS Appl. Mater. Interfaces **17**, 56991 (2025).
- V. C. Wu, E. A. Lawrence, T. Li, E. N. Bassey, C.-Y. Chang, B. J. Hwang, P.-E. Cabelguen, and R. J. Clement*, "*High Energy Density and Micrometer-sized d^0-free Disordered Rocksalt Cathodes*", Energ. Environ. Sci. **18**, 8918 (2025).
- X. Xu*(許曉敏), C.-K. Peng, Y.-G. Lin, and Z. Shao, "*Phase Engineering of Cobalt-based Perovskite Oxides Toward Enhanced Oxygen Evolution Electrocatalysis*", ChemElectroChem **12**, e202500326 (2025).
- A. Yadav, P. K. Pathak, B. M. Matsagar, R. Patil, N. C.-R. Chen, R. R. Urkude, M. Ujihara, K. C.-W. Wu, R. R. Salunkhe*, and S. Dutta*, "*Interfacial-bulk Electrochemistry of Sodium-ion Storage in Multiwalled Carbon Nanofiber Anode with Incorporated Mn-N_4 Single-atoms*", Chem. Eng. J. **525**, 169716 (2025).
- P. L. Yadav, P. Joshi, V. C. Lokhande, C.-F. Lee, S.-H. Hsieh, H.-T. Wang, Y.-C. Shao, C.-W. Pao, C.-H. Chen, J. B. Yadav, M. P. Ghimire, N. G. Deshpande, and R. B. Patil*, "*Revisiting the Electronic Structure of α-MnO_2 for Energy Storage Application*", J. Phys. Chem. C **129**, 2619 (2025).
- J. Yang, L. J. Falling, S. Yan, B. Zhang, P. Verma, L. Daemen, Y. Cheng, X. Zhao, S. Zhang, J.-L. Chen, B. Yao, S. Tan, S. Chae, Q. He, S. Nemsak, Z. Wu, D. Prendergast*, Y. Guo*(郭彥炳), J. Liu*(劉家旭), M. Salmeron*, and J. Su* (蘇際), "*Formation of Hydrided Pt-Ce-H Sites in Efficient, Selective Oxidation Catalysts*", Science **388**, 514 (2025).
- P.-T. Yang and S.-L. Wang*(王尚禮), "*Chemical Speciation and Availability of Molybdenum in Soils to Wheat Uptake*", J. Environ. Manage. **374**, 124097 (2025).

- X. Ye, Y. Yin, Y. Cao, Z. Liao, X. Wang, M. Liu, Q. Wang, Z. Pan, Z. Hu, H.-J. Lin, C. T. Chen, C.-W. Pao, P. Ohresser, L. Nataf, F. Baudelet, W. Yang, J. Yang, J. Cheng, P. Yu, X. Qiu, Y.-F. Yang, T. Xiang , and Y. Long*(龍有文), "*High-temperature Ferrimagnetic Order Triggered Metal-to-insulator Transition in $CaCu_3Ni_2Os_2O_{12}$*", Nat. Commun. **16**, 3746 (2025).
- L. Zeng, G. Lu, F. Jiang, Y.-J. Zhang, X. Jin, W. Huang, Y.-J. Lin, J.-F. Lee, X. Yi* (易筱筠), and Z. Dan, "*Quantitative Prediction and Mechanistic Insights into Cu(II) Transport in Kaolinite-coated Sand Columns Affected by Ferrihydrite Nanoparticles*", J. Hazard. Mater. **495**, 139036 (2025).
- F. Zhang, S. Hong, R. Qiao, W.-H. Huang, Z. Tang, J. Tang, C.-W. Pao, M.-H. Yeh, J. Dai, Y. Chen, J. Lu, Z. Hu, F. Gong*(鞏峰), Y. Zhu*(朱印龍), and H. Wang*(王煥庭), "*Boosting Alkaline Hydrogen Evolution by Creating Atomic-scale Pair Cocatalytic Sites in Single-phase Single-atom-ruthenium-incorporated Cobalt Oxide*", ACS Nano **19**, 11176 (2025).
- G. Zhang, C. Ye, T. Li*(李坦), S. Liu, W.-H. Huang, Z. Chen, X. Ren, J. Lin, J. Yang, Y. Qiu, and G. Chen*(陳光需), "*Quenching-induced Fe Doping on Spent Cathode Materials Enhances the Oxygen Evolution Reaction Performance*", Energy Storage Mater. **80**, 104430 (2025).
- H. Zhang, H. Xu, J. Chen, D. Guan*(管大泰), Z. Hu, X. Xu, Z. Lin, H. Sun, X. Sun, J. Tang, C.-W. Pao, C.-T. Chen, W. Zhou, C. Wang, Y. Guo*(郭友敏), and Z. Shao*(鄒宗平), "*Self-optimized Interfacial Co-O-Ru Motifs of Hollow Nanotube Composites Trigger Interfacial Lattice Oxygen Participation and Diffusion*", ACS Nano **19**, 25917 (2025).
- J. Zhang, F. Temnikov, X. Ye, X. Wang, Z. Pan, Z. Liu, M. Pi, S. Tang, C.-T. Chen, C.-W. Pao, W.-H. Huang, C.-Y. Kuo, Z. Hu, Y. Shen, S. V. Streltsov, and Y. Long*(龍有文), "*Large Manipulation of Ferrimagnetic Curie Temperature by A-site Chemical Substitution in $ACu_3Fe_2Re_2O_{12}$ (A=Na, Ca, and La) Half Metals*", Inorg. Chem. **64**, 472 (2025).
- L. Zhang, M. Li, C. Sun, H.-T. Wang, Y. Xiao, K. Ma, Y. Cai, C.-Y. Lee, Y.-C. Shao, C.-H. Wang, S. Zhao, H. Ishii, N. Hiraoka, X. Wang, C.-W. Pao, and L. Han*(韓麗麗), "*A Hydrazine-water Galvanic Cell-inspired Self-powered High-rate Hydrogen Production via Overall Hydrazine Electrosplitting*", Adv. Funct. Mater. **35**, 2420163 (2025).
- N. Zhang, Y. Chen, X. Li, C.-W. Pao, J. Zhao*(趙建康), B. C. Gates, and J. Zeng*(曾杰), "*Contrasting Atomically Dispersed Metal Catalysts Supported on CeO_x Nanoislands with Various Ligand Environments Including Chloride*", Angew. Chem. Int. Edit. **64**, e202507545 (2025).
- Y. Zhang, T. Fan, X.-G. Zhang*(張霞光), Z. Chen, Z. Hu, T.-S. Chan, X. Yi* (伊曉東), and X. Huang*(黃小青), "*Sulfur Vacancy Boosts Light-driven C-N Coupling in Upcycling of Polylactic Acid to Alanine*", J. Am. Chem. Soc. **147**, 22589 (2025).
- Y.-Y. Zhang, M.-Y. Lin, Y.-T. Tsai, M.-K. Leung*(梁文傑), and M.-H. Fang* (方牧懷), "*Sustainable Quantum Dot-vitrimer Composites: A Synergy of Quantum Dots and Dynamic Covalent Bonds*", ChemSusChem **18**, e202500464 (2025).
- Z. Zhang, Y. Li, X. Shen, L. Yang, C. Zhang, Y. Liu, B. Wang, C.-Y. Kuo, S.-C. Haw, C.-T. Chen, C.-W. Pao, H.-Y. Huang, D.-J. Huang, J. Ju, J. Ma, Z. Hu, Y. Gao*(高玉瑞), X. Wang*(王雪鋒), R. Yu, Z. Wang*(王兆翔), and L. Chen, "*Breaking the Vicious Spiral to Suppress Oxygen Loss in Li-rich Oxide Cathode Materials*", Adv. Mater. **37**, 2505724 (2025).
- Z. Zhang*(張志琦), J. Liu, S. Zhu, Y. Wang, J. Wang, M. Xu, J. Zhao, Z. Wang, D. Zeng, J. Zeng, Y. Song, C.-W. Pao, Z. Hu, J. Lim, R. Xiao, M. Shao, and F. Ciucci*, "*Dizygotic Atomic Platinum and Palladium on Carbon for High-performance Ethanol and Methanol Electro-oxidation*", Angew. Chem. Int. Edit. **64**, e202502348 (2025).
- S. Zhao, S.-F. Hung, Y. Wang, S. Li, J. Yang, W.-J. Zeng, Y. Zhang, H.-H. Chang, H.-Y. Chen, F. Hu, L. Li, and S. Peng*(彭生杰), "*Dynamic Deprotonation Enhancement Triggered by Accelerated Electrochemical Delithiation Reconstruction during Acidic Water Oxidation*", J. Am. Chem. Soc. **147**, 7993 (2025).
- H. Zheng, L. Lin, Z. Chen, T.-C. Yang, H. Wang, Z. Jiang, C. Bao, C.-M. Yang* (楊家銘), and N.-C. Lai*(賴念筑), "*Carbon Doped Cobalt Nanoparticles Encapsulated in Graphitic Carbon Shells: Efficient Bifunctional Oxygen Electrocatalysts for Ultrastable Zn-air Batteries*", J. Colloid Interf. Sci. **686**, 624 (2025).
- Z. Zheng, N. Sun, X. He, B. Deng, C.-W. Pao, W.-H. Huang, H. Liu, R. Wang* (王濡岳), R. Yu*(于潤澤), M. Lei, and K. Huang*(黃凱), "*Designing Quenching-driven Crystalline-amorphous High-entropy Oxide/Hydroxide Heterostructures for Efficient Oxygen Evolution Reaction*", J. Alloy. Compd. **1032**, 181112 (2025).
- Y. Zhu, J. Wang, G. Weiser, M. Klingenhof, T. Koketsu, S. Liu, Y. Pi, G. Henkelman, X. Shi, J. Li, C.-W. Pao, M.-H. Yeh, W.-H. Huang*(黃偉翔), P. Strasser*, and J. Ma*(馬吉偉), "*Ru Single Atoms and Sulfur Anions Dual-doped NiFe Layered Double Hydroxides for High-current-density Alkaline Oxygen Evolution Reaction*", Adv. Energy Mater. **15**, 2500554 (2025).
- Y. Zhu, W.-H. Huang, X. Shi, S. Liu, M. A. Tamerd, M. Yang, J. Li, M.-H. Yeh, C.-C. Chang, H. Cheng, and J. Ma*(馬吉偉), "*Spatial Confinement Synthesis of Platinum Group Metal Single-atom Alloy Catalysts for Acidic Hydrogen Evolution*", J. Am. Chem. Soc. **147**, 45893 (2025).

TPS 45A Submicron Soft X-ray Spectroscopy

- L. Alzate-Vargas*, L. J. Falling, S. Laha, B. Lotsch, J.-W. Chiou, T.-S. Chan, W.-F. Pong, C.-H. Chuang, J. J. V. Velez, and T. E. Jones*, "*Electron Deficient Oxygen Species in Highly OER Active Iridium Anodes Characterized by X-ray Absorption and Emission Spectroscopy*", Phys. Chem. Chem. Phys. **27**, 9252 (2025).
- A. K. Anbalagan*, W.-K. Chan, M.-H. Wu, F.-C. Hu, H.-H. Chiu, A. Sabbah, M. Chaudhary, S. Gupta, K.-W. Chuang, A. C. Gandhi, C.-Y. Chiang, H.-M. Tsai, S.-C. Haw, K. V. Savunthari, H.-J. Lin, L.-C. Chen, K.-H. Chen, N.-H. Tai, Y.-L. Chueh, S. Yun Wu, H.-Y. T. Chen*(陳馨怡), A. L. Walter*, and C.-H. Lee* (李志浩), "*Revealing Robust Room Temperature Ferromagnetism in Gd-doped Few-layered MoS_2 Thin Films*", Adv. Sci. **12**, e10366 (2025).
- Y.-W. Chang, Y.-C. Liu, S.-W. Huang, J.-Y. Sun, S.-Z. Ho, W.-Y. Tzeng, C.-C. Chiu, Y.-C. Ku, P. Kaur, T. A. Butcher, C. Piamonteze, U. Staub, Y.-C. Chen, C.-F. Chang, C.-Y. Kuo, Y.-H. Chu, A. Kleibert, C.-W. Luo, and J.-C. Yang* (楊展其), "*Correlated Magnetic and Electrical Phenomena in Epitaxially Weaved Manganite Lateral Homostructures*", Small **21**, 2411424 (2025).
- S. Chen, F.-H. Gong, X. Li, Y.-C. Ku, C.-E. Liu, Y. Nie, Y. Si, S. Yuan, J. Lu, H.-J. Qiu, K. Hu, K. Li, Y. Huang, C.-Y. Xu, K. H. Zhang, Y.-L. Tang, L. Chen, C.-F. Chang, Z. Hu, S. Das, X. L. Ma*(馬秀良), C.-Y. Kuo*(郭昌洋), and Z. Chen* (陳祖煌), "*Unleashing Electrocatalytic Oxygen Evolution Activity: Engineering Spin States in Strained Correlated Oxides for Enhanced Performance*", ACS Nano **19**, 23647 (2025).
- K. Fujinuma, D. Takegami*(武上大介), A. Melendez-Sans, M. Yoshimura, K.-D. Tsuei, R. Higashinaka, T. D. Matsuda, Y. Aoki, M. Hedo, Y. Onuki, L. H. Tjeng, and T. Mizokawa, "*Effect of S 3p and Se 4p Holes on Charge Fluctuations in Pyrite-type CuS_2 and $CuSe_2$ Revealed by Hard X-ray Photoemission Spectroscopy*", Phys. Rev. B **111**, 115147 (2025).
- S. Ghosh, C.-W. Li, C.-E. Hsu, Y.-H. Liang, W.-X. Lin, K.-H. Chen, H.-T. Wang, C.-H. Du, J.-W. Chiou*(邱昭文), H.-M. Tsai, J.-L. Chen, C.-W. Pao, C.-M. Cheng, C.-N. Kuo, C.-S. Lue, S. C. Ray, H.-C. Hsueh*(薛宏中), and W.-F. Pong*(彭維鋒), "*Structural Instability and Charge Transfer Mediated Transition in $Pr_3Co_4Sn_{13}$: A Synchrotron Radiation Based Scattering and Spectroscopic Study*", Phys. Rev. B **111**, 165119 (2025).
- J. Li, S. Deng, L. Ma, Y. Si, C. Zhou, K. Wang, S. Huang, J. Yang, Y. Tang, Y.-C. Ku, C.-Y. Kuo, Y. Li, S. Das, S. Liu*(劉仕), and Z. Chen*(陳祖煌), "*Enhancing Ferroelectric Stability: Wide-range of Adaptive Control in Epitaxial HfO_2/ZrO_2 Superlattices*", Nat. Commun. **16**, 6417 (2025).
- C.-Y. Lin*(林哲儀), B.-C. Chen, Y.-C. Liu, S.-F. Kuo, H.-C. Tsai, Y.-M. Chang* (張原銘), C.-Y. Kuo, C.-F. Chang, J.-H. Chen, Y.-H. Chu, M. Yamamoto, C.-H. Shen, Y.-L. Chueh, P.-W. Chiu, Y.-C. Chen, J.-C. Yang*(楊展其), and Y.-F. Lin* (林彥甫), "*Integration of Freestanding Hafnium Zirconium Oxide Membranes into Two-dimensional Transistors as a High-κ Ferroelectric Dielectric*", Nat. Electron. **8**, 560 (2025).
- Y.-R. Lin, and F.-H. Ko*(柯富祥), "*Cu-doped $In(OH)_3/In_2S_3/In_2O_3$ Nanostructures for Efficient Photocatalytic Hydrogen Evolution from Natural Seawater Under Visible Light*", Surf. Interfaces **72**, 107130 (2025).
- J. Liu, Y. Wen, W. Yan, Z. Huang, X. Liu, X. Huang, C. Zhan, Y. Zhang, W.-H. Huang, C.-W. Pao, Z. Hu, D. Su, S. Xie, Y. Wang, J. Han*(韓佳甲), H. Xiong*(熊海峰), X. Huang*(黃小青), and N. Chen*(陳南君), "*Single-atom Mediated Crystal Facet Engineering for the Exceptional Production of Acetate in CO Electrolysis*", Energ. Environ. Sci. **18**, 4396 (2025).
- D. Takegami, T. Okauchi, E. A. Morales, K. Fujinuma, M. Furo, M. Yoshimura, K.-D. Tsuei, G. A. Pan, D. F. Segedin, Q. Song, H. Paik, C. M. Brooks, J. A. Mundy, T. Mizokawa, L. H. Tjeng, B. H. Goodge*, and A. Hariki*(播木敦), "*Valence, Charge Transfer, and Orbital-dependent Correlation in Bilayer Nickelates $Nd_3Ni_2O_7$*", Phys. Rev. B **111**, 165101 (2025).
- D. Vishnu S. K., C.-Y. Huang, C.-R. Wu, B.-Y. Lin, C.-C. Chen, H.-M. Tsai, J.-W. Chiou, R. Sankar*(雷曼), T.-Y. Yu*(余慈顏), C.-K. Ni*(倪其焜), W.-F. Pong, and C.-W. Chen*(陳俊維), "*Ferromagnetic-antiferromagnetic Interfaces in MAX Phase Electrocatalysts: a Spin-driven Platform for Enhanced Oxygen Evolution Reaction*", Sustain. Energy Fuels **9**, 4894 (2025).
- T. Wang, M. Zou, D. Zhang, Y.-C. Ku, Y. Zheng, S. Pan, Z. Ren, Z. Xu, H. Huang, W. Luo, Y. Tang, L. Chen, C.-E. Liu, C.-F. Chang, S. Das, L. Bellaiche, Y. Yang*(楊玉榮), X. Ma*(馬秀良), C.-Y. Kuo*(郭昌洋), X. Liu*(劉興軍), and Z. Chen*(陳祖煌), "*Large Enhancement of Properties in Strained Lead-free Multiferroic Solid Solutions with Strong Deviation from Vegard´s Law*", Matter **8**, 101874 (2025).
- T. Wang, F. Gong, X. Ma, S. Pan, X.-K. Wei, C.-Y. Kuo, S. Yoshida, Y.-C. Ku, S. Wang, Z. Yang, S. Hazra, K. H. L. Zhang, X. Liu, Y. Tang, Y.-L. Zhu, C.-F.

Chang, S. Das, X. Ma, L. Chen, B. Xu, V. Gopalan, L. Bellaiche, L. W. Martin, and Z. Chen*(陳祖煌), "*Large Enhancement of Ferroelectric Properties of Perovskite Oxides via Nitrogen Incorporation*", Sci. Adv. **11**, eads8830 (2025).

- S. Yun, C.-F. Chang, S.-H. Chen, C.-Y. Kuo, L. H. Tjeng, and A. C. Komarek*, "*Direct observation of V-trimers in the Crystal Structure of $LiVO_2$*", Commun. Chem. **8**, 202 (2025).

TLS 01B1 SWLS – X-ray Microscopy (PRT 75%)

- H. Chen, H.-W. Liu, Y.-C. Lu, P.-J. Yu, C.-H. Liao, C.-C. Wang, T.-S. Chan, H.-S. Sheu, P.-Y. Chang, J.-L. Chen, S.-C. Haw, G.-C. Yin, Y.-F. Song, C.-W. Pao, and N.-L. Wu*(吳乃立), "*Realizing Practical Use of $LiNiO_2$ Cathode in Halide-based All-solid-state Lithium Metal Batteries*", Chem. Eng. J. **519**, 165314 (2025).
- C.-Y. Huang, R.-C. Wang, T.-S. Hsu, T.-N. Hung, M.-Y. Shen, C.-H. Chang, and H.-C. Wu*(吳亘承), "*Developing an E. coli-based Cell-free Protein Synthesis System for Artificial Spidroin Production and Characterization*", ACS Synth. Biol. **14**, 1829 (2025).
- C.-H. Liao, M.-Y. Shen, Y.-J. Wang, T.-Y. Yu, R.-J. Jeng, T.-I. Yang, M. B. Dickerson, C.-S. Hung, J. S. Knopp, H.-C. Wu*(吳亘承), and S.-H. Tung*(童世煌), "*Weaving Strength and Conductivity: Spider Silk-modulated Polymer Electrolytes for High-performance All-solid-state Lithium-metal Batteries*", J. Mater. Chem. A **13**, 36072 (2025).
- C.-H. Liao, Y.-T. Weng, S.-K. Parthasarathi, H. Chen, S.-J. Chang, G.-Y. Liu, T.-Y. Yu, C.-W. Pao, T.-S. Chan, W.-T. Chuang, C.-C. Wang, R.-J. Jeng, and N.-L. Wu*(吳乃立), "*A Li-ion Permeable Poly(Phenylene Ether-ether-Sulfone) Interphase to Address Interfacial Instability and Structural Degradation of Ni-rich NCM Cathodes in Poly(Ethylene Oxide)-based All-solid-state Li-ion Batteries*", Chem. Eng. J. **523**, 168677 (2025).
- M.-H. Lin*(林明憲), W.-H. Huang, S.-F. Chao, M.-H. Yeh, and N.-W. Pu, "*Towards Stable Rechargeable Zinc-air Batteries: Synergistic Effect of PEI-based Hybrid Additives on Zinc Metal Anodes in the Alkaline Electrolyte Solution*", J. Power Sources **652**, 237678 (2025).
- S. K. Sapra, J.-K. Chang, and R. S. Dhaka*, "*Unraveling the Storage Mechanism of $Na_3V_{2-x}Ni_x(PO_4)_2F_3$/C Cathodes for Sodium-ion Batteries Through Electrochemical, Operando X-ray Diffraction and Microscopy Studies*", Energy Storage Mater. **81**, 104478 (2025).
- E. B. Tamilarasan, Y.-C. Huang, T. Agnihotri, T.-I. Yeh, Y. Nikodimos*, E. A. Moges, S. A. Ahmed, R. Hasan, A. V. Saravanan, B. W. Taklu, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Probing Li_2S Activation Mechanism in Lithium-sulfur Batteries via Multimodal Operando Techniques*", ACS Energ. Lett. **10**, 6390 (2025).
- D.-H. Tan, C.-Y. Chang*(張峻瑜), Y.-C. Huang*(黃裕清), M.-F. Lin, and W.-F. Su*(林唯芳), "*Biomimicking Extracellular Matrix Fabricated from Alginate-polypeptide Hydrogel with Aligned Fibrous Structure*", Colloid. Surface. A **727**, 138120 (2025).
- N. A. T. Than, L. C. Hsu, Y.-H. Chen, K. Huangmee, C.-C. Wang, H. Y. Teah, Y.-M. Tzou, Y.-L. Cho*(卓宴琳), and Y.-T. Liu*(劉雨庭), "*Anaerobic Fe(II) Bio-oxidation by Cyanidiophyceae to Enhance As(III) Removal: A Novel and Efficient Biological Material Toward Resilient Remediation*", Chem. Eng. J. **523**, 168303 (2025).
- Y.-J. Yeh, S.-Y. Chen, W. Lin, and W.-H. Chiang*(江偉宏), "*Scalable Mixed-dimensional Nanogenerator for the Sunlight-driven Water-energy Nexus*", Small **21**, e05941 (2025).

TLS 01C1 SWLS – EXAFS

- D. Bhalothia, C. Yan, Y. Wu, J.-C. Kao, Y.-C. Lo, H. Li, N. Hiraoka, H. Ishii, Y.-F. Liao, S. Dai*(戴升), C.-H. Wang, A. Hu, J.-P. Chou, P.-C. Chen*(陳柏均), and T.-Y. Chen*(陳燦耀), "*Local Collaboration Between Oxygen Vacancy, Palladium and Platinum Trimer Triggers Exceptional Performance in the Alkaline Fuel Cell*", Chem. Eng. J. **522**, 167605 (2025).
- G. Cai, G. Zhang, Y. Li, L. Wang, S. Xie, J. Zhang, Y.-R. Lu, T.-S. Chan, X. Kong, X. Wu, S. Jin*(金松), J. Lu*(路軍嶺), and H. Ji*(季恒星), "*Structural Sensitivity of Atomically Dispersed Catalysts in Electrocatalytic Reactions for Lithium-sulfur Batteries*", Adv. Funct. Mater. **35**, 2501600 (2025).
- L. Cai, H. Bai, J. Li, F. Xie, K. Jiang, Y.-R. Lu, H. Pan, and Y. Tan*(譚勇文), "*Single-atom Tungsten Doping Induced Chemical-electrochemical Coupled Pathway on $Ni(OH)_2$ Enables Efficient Urea Electrooxidation*", Energ. Environ. Sci. **18**, 2415 (2025).
- H.-W. Chang, T. Yang, C. Yan, P.-H. Chiu, C.-Y. Wu, H.-W. Yen, D. Bhalothia*, K.-W. Wang, P.-C. Chen*(陳柏均), and T.-Y. Chen*(陳燦耀), "*Oxidized Ti Single Atoms and Co_3O_4 with Abundant Oxygen Vacancies Collaborating with Adjacent Pd Sites for an Efficient and Stable Oxygen Reduction Reaction*", Adv. Sci. **12**, 2417789 (2025).
- D. Chen, Y. Cai, Y. Xiao, C. Wang, Y. Li, K. Ma, D. Xiao, H.-T. Wang, C.-F. Lee, L. Zhang, H. Ishii, Y.-C. Shao, N. Hiraoka, L. Han*(韓麗麗), X. Liu*(劉學明), and H. L. Xin, "*Electrosynthesis of Urea on High-density Ga-Y Dual-atom Catalyst via Cross-tuning*", Adv. Mater. **37**, 2420593 (2025).
- H. Chen, H.-W. Liu, Y.-C. Lu, P.-J. Yu, C.-H. Liao, C.-C. Wang, T.-S. Chan, H.-S. Sheu, P.-Y. Chang, J.-L. Chen, S.-C. Haw, G.-C. Yin, Y.-F. Song, C.-W. Pao, and N.-L. Wu*(吳乃立), "*Realizing Practical Use of $LiNiO_2$ Cathode in Halide-based All-solid-state Lithium Metal Batteries*", Chem. Eng. J. **519**, 165314 (2025).
- J. Chen, F. Xue, H. Peng, C.-W. Pao, W.-H. Huang, Z. Hu, Y. Xu*(徐勇), and X. Huang*(黃小青), "*Highly Efficient Photocatalytic H_2O_2 Production under Ambient Conditions via Defective In_2S_3 Nanosheets*", Langmuir **41**, 1149 (2025).
- K. Chen, P. Ou, M. Cao, L. Wu, K. Liu, L. Jing*(荊莉紅), A. Pinilla-Sánchez, Z. Mei, J. Fu, H. Li, W. Li, K. Gu, X. Zheng, T.-S. Chan, C.-W. Kao, C. Liu, F. P. García de Arquer, S. Yang, T. Wang, J. Zhang*(張娟), L. Chai, Z. Lin, M. Liu*(劉敏), and B. Han*(韓布興), "*Flexibility-induced Robustness in Molecular Catalysts for Electrocatalytic CO_2 Reduction*", J. Am. Chem. Soc. **147**, 34019 (2025).
- S. Chen, T. Luo, J. Wang, J. Xiang, X. Li, C. Ma, C.-W. Kao, T.-S. Chan, Y.-N. Liu, and M. Liu*(劉敏), "*Tuning Proton Affinity on Co-N-C Atomic Interface to Disentangle Activity-Selectivity Trade-off in Acidic Oxygen Reduction to H_2O_2*", Angew. Chem. Int. Edit. **64**, e202418713 (2025).
- S.-C. Chen, S.-W. Lin, S.-L. Chang, Y.-R. Lu*(盧英睿), and C.-J. Chen*(陳致融), "*Efficient H_2O_2 Electrosynthesis via Strategic Regulation of Sulfur Coordination in Single-atom Catalysts*", Chem. Eng. J. **521**, 166571 (2025).
- Y.-C. Chen, L.-C. Chang, Y.-L. Liu, M.-C. Chang, Y.-F. Liu, P.-Y. Chang, D. Manoharan, W.-J. Wang, J.-S. Chen, H.-C. Wang, W.-T. Chiu*(邱文泰), W.-P. Li*(李偉鵬), H.-S. Sheu*(許火順), W.-P. Su*(蘇文彬), and C.-S. Yeh*(葉晨聖), "*Redox Disruption Using Electroactive Liposome Coated Gold Nanoparticles for Cancer Therapy*", Nat. Commun. **16**, 3253 (2025).
- T. Dey, A. Yadav, N. Seal, B. M. Matsagar, N. C.-R. Chen, P. Yadav, K. C.-W. Wu*(吳嘉文), A. Bano*, and S. Dutta*, "*Single-atomic Ni-N_4 Biofuel Cell for Mimicking Intramolecular Electron-harnessing of Laccase*", Angew. Chem. Int. Edit. **64**, e202511892 (2025).
- S. Ghosh, C.-W. Li, C.-E. Hsu, Y.-H. Liang, W.-X. Lin, K.-H. Chen, H.-T. Wang, C.-H. Du, J.-W. Chiou*(邱昭文), H.-M. Tsai, J.-L. Chen, C.-W. Pao, C.-M. Cheng, C.-N. Kuo, C.-S. Lue, S. C. Ray, H.-C. Hsueh*(薛宏中), and W.-F. Pong*(彭維鋒), "*Structural Instability and Charge Transfer Mediated Transition in $Pr_3Co_4Sn_{13}$: A Synchrotron Radiation Based Scattering and Spectroscopic Study*", Phys. Rev. B **111**, 165119 (2025).
- C. B. Guta, C.-Y. Chang, F. T. Angerasa, B. D. Bejena, H. G. Edao, W. B. Dilebo, E. A. Moges, M.-C. Tsai*(蔡孟哲), W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Decisive Electrocatalyst of Oxyphilic Transition Metals with Bivalent Metal Perovskites: Localized Oxygen Confinement for Enhanced 2e-WOR in H_2O_2 Production*", Chem. Eng. J. **524**, 169336 (2025).
- Y.-P. Han, Z.-R. Wang, Y.-Y. Yan, Q.-H. Li, P. Shao, H.-X. Zhang, L.-L. Han, F. Wang*(王飛), and J. Zhang*(張健), "*Coplanar Two-dimensional Cu-MOF with Dual-Cu Sites for Electrocatalytic CO_2 Reduction to C_2H_4*", Chem. Eng. J. **507**, 160493 (2025).
- G.-L. Huang, K.-Y. Ting, N. Narayanam, D.-R. Wu, T.-E. Hsieh, K.-C. Tsai, D.-W. Yang, Q.-X. Tang, B.-K. Su, Y.-T. Kang, S.-J. Huang, C.-H. Chen, Y.-P. Chang, L.-S. Yang, Y.-C. Chao, E. Y.-T. Li*(李祐慈), and Y.-H. Liu*(劉沂欣), "*Unexpected Magnetic Moments in Manganese-doped $(CdSe)_{13}$ Nanoclusters: Role of Ligands*", Angew. Chem. Int. Edit. **64**, e202420257 (2025).
- W. Huang, H. Xu, Y. Deng, S.-W. Lin, H. N. Pham, R. Zhang, D. Jiang, Z. Zhang, A. DeLaRiva, S. Feng, Y. Li, X. Zhang, A. K. Datye, C.-J. Chen*(陳致融), and Y. Wang*, "*Single-atom Zr Promoter Boosts Oxygen Activation on Ceria-supported Pt Catalysts*", Nat. Commun. **16**, 7274 (2025).
- Z. Huang, Q. Xiao, T. Ding, J. Xia*(夏靜), C. Zhan, X. Meng, C.-W. Pao, Z. Hu, W.-H. Huang, Y. Wang, N. Chen*(陳南君), L. Cao*(曹亮), and X. Huang*(黃小青), "*Interfacial Metal-coordinated Bifunctional PtCo for Practical Fuel Cells*", Sci. Adv. **11**, eadt4914 (2025).
- S. İde*, S. Bayarı*, W. T. Chuang, Y.-C. Huang, U.-S. Jeng, and T. Türkeş, "*Micro and Nanoscale Structural Properties of the Spider Dragline Silks*", Int. J. Biochem. Res. Rev. **34**, 37 (2025).
- Y. Jiang, T.-H. Huang, K.-Y. Chiu, S.-W. Lee, T.-Y. Chen, Y. Jia, J.-H. Wang*(王禎翰), K.-W. Wang*(王冠文), and S. Dai*(戴升), "*Surface SnO_2 Decoration: An economical and Efficient Alternative to Pt Shells in Pt-Co Catalysts for Enhanced Oxygen Reduction Reaction*", Chem. Eng. J. **511**, 161971 (2025).
- J.-W. Kang, H.-C. Cheng, H.-J. Chen, S.-C. Huang, C.-H. Lee, C.-L. Kuo, S.-Y. Yu, H.-L. Wu, C.-C. Lin, C.-H. Kuo, H.-H. Chang, C.-W. Hu, S.-C. Haw*(何樹智), H.-Y. T. Chen*(陳馨怡), and H.-Y. Chen*(陳翰儀), "*P_2-$Na_{0.61}Ca_{0.03}[Mg_{2/9}Cu_{1/9}Mn_{2/3}]O_2$ as a High-energy Oxygen Redox Cathode for Na-ion Batteries: Investigation of Cu Substitution and Ca Doping to Enhance Cycling Stability*", Adv. Funct. Mater. **35**, 2504642 (2025).
- S. Karuppuchamy, T. A. Kumaravelu, T. T. T. Nga, C.-L. Chen, T.-S. Chan, C.-L.

Dong, D. Arumugam, S. Ramasamy, M. Govindasamy, C.-Y. Kuo*(郭志宇), and S. Thangavelu*, "*Tailored Cobalt Single Atoms on Strong Metal-support Interactions Drive the Tandem Bifunctional Electrocatalytic Overall Water Splitting*", ACS Appl. Energy Mater. **8**, 11099 (2025).

- T. A. Kumaravelu, J.-L. Chen, C.-L. Chen, S.-Y. Chen, D.-H. Wei, S.-H. Chen, T. T. T. Nga, W.-C. Chou, and C.-L. Dong*(董崇禮), "*Electronic Structural Modulation for CO-CO_2 Conversion of Copper-modified Nanoceria Studied by In Situ X-ray Absorption Spectroscopy*", Inorg. Chem. **64**, 5375 (2025).
- W. Liao, J. Wang, Y. Tan, X. Zi, C. Liu, Q. Wang, L. Zhu, C.-W. Kao, T.-S. Chan, H. Li, Y. Zhang, K. Liu, C. Cai, J. Fu, B. Xi*(席北斗), E. Cortés*, L. Chai, and M. Liu*(劉敏), "*Near-unity Nitrate to Ammonia Conversion via Reactant Enrichment at the Solid-liquid Interface*", Nat. Commun. **16**, 5715 (2025).
- L.-J. Liaw, Z.-Q. Liu, M. Raheel, P.-W. Chen, S. Obinata, P.-C. Chang, P.-H. Hsu, Y.-Y. Hsu, T. Kimura, Y.-C. Shao*(鄧禹成), and W.-C. Lin*(林文欽), "*Hydrogen Absorption-induced Rotation of Magnetic Anisotropy and Tunable Electrical Transport in FePd Alloy Thin Films*", J. Alloy. Compd. **1014**, 178748 (2025).
- P. Liu, J.-R. Chen, F. Du, L. Duan, W. Luo, G. Chen, X. Liu, R. Ma, H. Li*(李紅梅), T.-S. Chan*(詹丁山), M. Liu, and N. Zhang*(張寧), "*Interfacial Cation-driven Bond-length Engineering for Selective CO_2 Photoreduction to Syngas*", ACS Catalysis **15**, 20899 (2025).
- Y. Liu, S. Wu*(伍松林), F. You, N. Saha, T.-S. Chan, and L. Huang*(黃隆斌), "*Attenuation of Pollution Risks in Sulfidic Lead-zinc Tailings Through Accelerating Weathering of Sulfides by Indigenous Acidithiobacillus Consortia*", Chem. Geol. **683**, 122765 (2025).
- K.-C. Lo, C.-W. Kao, T.-S. Chan, C.-Y. Wu, Y.-M. Lin, and T.-Y. Lin*(林姿瑩), "*A Silver Lining for Space Solar Cells: Ag-enhanced CIGS Solar Cells Resist and Recover From Radiation*", Solar RRL **9**, e202500646 (2025).
- C. Lu, S. Wu*(伍松林), L. Ma, F. You, N. Saha, H. Bu, J. Fernando, D. Parry, L. Thomsen, T.-S. Chan, and L. Huang*(黃隆斌), "*Haloalkalitolerant Plants Drive Alkaline Mineral Weathering and Dealkalization of Seawater-treated Bauxite Residue*", Plant Soil **514**, 1993 (2025).
- W. Luo, K. Liu, T. Luo, J. Fu, H. Zhang, C. Ma, T.-S. Chan, C.-W. Kao, Z. Lin, L. Chai, M. L. Coote, and M. Liu*(劉敏), "*Promoting C-F Bond Activation for Perfluorinated Compounds Decomposition via Atomically Synergistic Lewis and Brønsted Acid Sites*", J. Am. Chem. Soc. **147**, 7391 (2025).
- W.-C. Pan, C.-H. Luo, W.-L. Lin, L.-C. Wang, D. Manoharan, P.-Y. Chang, H.-S. Sheu*(許火順), C.-H. Yeh*(葉丞豪), C.-J. Yen*(顏家瑞), and C.-S. Yeh*(葉晨聖), "*Enhanced Catalytic Cycle of Glucose Oxidation and Reactive Species with ROS and RHS Generation Mediated by Galvanic Engineering of Dual Atomic Sites on Covalent Organic Frameworks Demonstrating Synergistic Bimetal Tumor Treatment*", Adv. Sci. **12**, e00515 (2025).
- R. Patil, P. K. Pathak, M. Mishra, B. M. Matsagar, A. Mohini, N. C.-R. Chen, K. C.-W. Wu, A. Bano*, R. R. Salunkhe*, and S. Dutta*, "*Fe-single-atom Incorporated Wood-derived Anode with Fe-N-C/Fe_3C Structural Unit and Hollow Diffusion Sites for Enhanced Sodium-ion Storage*", Small **21**, e07064 (2025).
- S. She, C. Chen, K. Fan, G. Chen, Y. Zhu, D. Guan, Y.-C. Huang, H.-C. Chen, Z. Lin, H. F. Wong, L. Li, Y. Zhu, C. W. Leung, Y. H. Tsang*(曾達康), and H. Huang*(黃海濤), "*Optimizing the Ru Catalyst-support Interaction via Tunnel Size of MnO_2 Support for Enhanced Acidic Water Oxidation*", J. Am. Chem. Soc. **147**, 24392 (2025).
- Y.-C. Shen, C.-C. Chang, D. R. Sahu, W.-H. Chu, C.-L. Chen, W.-N. Su, J.-L. Huang, S.-C. Wang*(王聖璋), and Y.-M. Shen*(沈祐民), "*Structural Evolution and Electrocatalytic Mechanism of Bimetallic Nickel-molybdenum/g-C_3N_4 Composites in Alkaline Hydrogen Evolution Reaction: XAS and Operando TEM Study*", Int. J. Hydrogen Energ. **190**, 152249 (2025).
- Z. Teng, Y. Tu, N. Jian, Q. Zhang, Y.-R. Lu, L. Li, Z. Cao, Y. Ao*(敖燕輝), M. Liu, Y. Yan, J. Wang, H. Wu, T. Ohno, J. Lu*(路建美), C. Su*(蘇陳良), and B. Liu*(劉彬), "*Visible-light-driven Selective Mineralization of Organohalides on Spatially Close Au Single-atom and Nanocluster Neighbors Over Poly(Heptazine Imides)*", Angew. Chem. Int. Edit. **64**, e202507654 (2025).
- N. Q. Thang, A. Sabbah*, R. Putikam, C.-Y. Huang, T.-Y. Lin, M. K. Hussien, H.-L. Wu, M.-C. Lin, C.-H. Lee, K.-H. Chen*(陳貴賢), and L.-C. Chen*(林麗瓊), "*Regulating COOH Intermediate via Rationally Constructed Surface-active Sites of Bi_2WO_6 for Solar-driven CO_2-to-CO Production*", Adv. Funct. Mater. **35**, 2423751 (2025).
- F.-Z. Tian, W.-J. Chang, P.-J. Liang, Y.-A. Lai, C.-S. Hsu, S.-C. Lin, Y.-H. Chen, Y.-C. Chu, S.-W. Huang*(黃詩雯), H.-L. Chen*(陳輝龍), and H. M. Chen*(陳浩銘), "*Charge Redistribution Dynamics in Chalcogenide-stabilized Cuprous Electrocatalysts Unleash Ampere-scale Partial Current Toward Formate Production*", Nat. Commun. **16**, 9426 (2025).
- C.-H. Tso, C.-H. Hsu, J. Wang, P.-Y. Lin, H.-T. Lin, N. Hiraoka, M.-K. Tsai*(蔡明剛), C.-H. Chen*(陳志欣), and H. M. Chen*(陳浩銘), "*Medium Spin Fe^{III} Regulating the Peroxide Selectivity in the Heterogeneous Oxygen Reduction Reaction of Spin-polarized Fe-TAML Complexes*", Mater. Horizons **12**, 9808 (2025).
- J. Wang, M.-T. Liu, C.-S. Hsu, Y.-C. Chu, Y.-F. Liao, C.-W. Pao, T.-S. Chan, W.-T. Chuang, J.-L. Chen, Y.-C. Shao, H. Ishii, N. Hiraoka, C.-Y. Chiang*(蔣慶有), and H. M. Chen*(陳浩銘), "*Resolving Dynamic Behavior of Electrocatalysts via Advances of Operando X-ray Absorption Spectroscopies: Potential Artifacts and Practical Guidelines*", Adv. Mater. **37**, 2418797 (2025).
- J. Wang, K. Liu, W. Liao, Y. Kang, H. Xiao, Y. Chen, Q. Wang, T. Luo, J. Chen, H. Li, T.-S. Chan, S. Chen, E. Pensa, L. Chai, F. Liu, L. Jiang, C. Liu, J. Fu, E. Cortés, and M. Liu*(劉敏), "*Metal Vacancies in Semiconductor Oxides Enhance Hole Mobility for Efficient Photoelectrochemical Water Splitting*", Nat. Catal. **8**, 229 (2025).
- K. Wang, X. Huang, Y. Liu*(劉洋), M. Liu, and W. Li*(李文章), "*Quasi-diatomic Site-tailored Molecular Catalyst on Si Nanowire Boosting Photoelectrocatalytic CO_2 Reduction Efficiency at Ultralow Potential*", J. Energy Chem. **108**, 749 (2025).
- M. Wang, Y. Li, J. Jia, T. Ghosh, P. Luo, Y.-J. Shen, S. Wang, J. Zhang, S. Xi, Z. Mi, M. Zhang, W. R. Leow, B. Johannessen, Z. Aabdin, S.-F. Hung, J. Zhang*(張杰), and Y. Lum*(林彦瑋), "*Tuning Catalyst-support Interactions Enable Steering of Electrochemical CO_2 Reduction Pathways*", Sci. Adv. **11**, eado5000 (2025).
- M. Wang, C. Luo, Z. Mi, Y.-C. Chang, Y.-T. Chueh, P. Luo, M. Zhang, J. Zhang, R. Yang, Q. Yang, S. Wang, S. Chen, J. Jia, W. R. Leow, Z. Aabdin, S.-F. Hung, and Y. Lum*(林彦瑋), "*Triple-phase Boundaries Enable Selective Urea Production From Simulated Flue Gas in a Zero-gap Electrolyzer*", Angew. Chem. Int. Edit. **64**, e202505987 (2025).
- Q. Wang, Y. Liu, Y. Tan, Y. Xiao, L. Liao, J. Fu, S. Zhao, H. Li, C.-W. Kao, T.-S. Chan, H. Zhou, F. Li, L. Chai, Z. Lin, K. Liu*(劉康), and M. Liu*(劉敏), "*Enhanced Acidic CO_2-to-C_{2+} Reduction via Ionic Liquid Layer Modification*", Small **21**, 2412293 (2025).
- Q. Wang, T. Luo, X. Cao, Y. Gong, Y. Liu, Y. Xiao, H. Li, F. Gröbmeyer, Y.-R. Lu, T.-S. Chan, C. Ma, K. Liu, J. Fu, S. Zhang, C. Liu, Z. Lin, L. Chai, E. Cortes*, and M. Liu*(劉敏), "*Lanthanide Single-atom Catalysts for Efficient CO_2-to-CO Electroreduction*", Nat. Commun. **16**, 2985 (2025).
- Q. Wang, Y. Xiao, F. Li, Y. Tan, Y. Liu, F. Gröbmeyer, K. Liu, J. Fu, H. Li, C.-W. Kao, T.-S. Chan, R.-K. Miao, L. Chai, E. Cortés*, and M. Liu*(劉敏), "*Engineering Interlayer Electric Fields to Enhance K^+ Insertion for Efficient Acidic CO_2 Reduction*", ACS Catalysis **15**, 15920 (2025).
- Y. Wen, C. Zhan, J. Liu, X. Zhuang, S. Liu, T. Yang, W. Liu, X. Liu, C.-W. Kao, Y.-C. Huang, T.-S. Chan, Z. Hu, D. Su, J. Han, N. Chen*(陳南君), and X. Huang*(黃小青), "*Zeolite-confined Cu Single-atom Clusters Stably Catalyse CO to Acetate at 1 A cm^{-2} Beyond 1,000 h*", Nat. Nanotechnol. **20**, 656 (2025).
- C.-Y. Wu, C.-E. Huang, A.-C. Luo, W.-H. Lu, S.-C. Huang, Y.-M. Huang, V. K. Peterson, H.-Y. Liu, C.-L. Chen, Y.-R. Lu, T.-Y. Chen, C.-Z. Lu*(陸成章), W. K. Pang*, and H.-Y. Chen*(陳翰儀), "*Enabling High-performance and High-ratecapability $Na_4MnV(PO_4)_3$ Sodium-ion Battery Cathodes Through Tuning the NASICON Framework*", J. Mater. Chem. A **13**, 2716 (2025).
- H. Wu, S. Wu*(伍松林), C. Wang, Y. Zhang, S. Chen, W. Fu, T.-S. Chan, D. V. Gamage, and B. Chen, "*Physicochemical and Mineralogical Constraints on the Ecological Rehabilitation of Coal Mine Waste*", Plant Soil **519**, 595 (2025).
- M.-C. Wu*(吳明忠), K.-C. Hsiao, C. Fu, T.-H. Lin, Y.-H. Chang, Y.-C. -C., M.-P. Nieh, W.-F. Su, and M. Li*(李明達), "*Giant, Non-perturbative Tuning of Light-matter Interaction of Embedded Quantum Dots in Semiconducting Matrices*", Adv. Compos. Hybrid Mater. **8**, 281 (2025).
- S.-C. Wu, S.-M. Lin, H.-A. Lo, S.-Y. Tang, Y.-C. Hsu, Y.-R. Peng, B.-N. Gu, Y.-T. Chen, Y.-C. Shen, T.-S. Wu, C.-Y. Chen, H.-J. Liao, L. Lee, and Y.-L. Chueh*(闕郁倫), "*Design of Electrolyte Using Deep Eutectic Solvents for High-performance Rechargeable Nickel-iodine Batteries*", Small **21**, 2412549 (2025).
- Z. Xiang, Y.-R. Lu, L. Meng, J. Lan, F. Xie, S. Gao, J. Li, M. Luo*(羅琳), M. Peng*(彭鳴), and Y. Tan*(譚勇文), "*Active Hydrogen Enrichment on Cu_6Sn_5-type High Entropy Intermetallics for Efficient Nitrate Reduction Reaction*", Adv. Mater. **37**, 2501886 (2025).
- P. Xiong, J. Li, Z. Xu, Y. Lin, R. D. Bennett, Y. Zhang, W.-M. Tu, Y. Zhu, Y.-L. Soo, T.-S. Wu*(吳泰興), and M. M.-J. Li*(李孟蓉), "*Efficient Low-temperature Ammonia Cracking Enabled by Strained Heterostructure Interfaces on Ru-free Catalyst*", Adv. Mater. **37**, 2502034 (2025).
- T. Xu, J. Shi, K.-S. Peng, Y.-H. Hsu, Y.-C. Liu, S. Wang, H. Zhang, Y. Wang, G. Zhang, S.-F. Hung, K. Liu*(劉錕隆), and X. Wang*(王心晨), "*Organic Surface Passivation on Rh@CeO_2 Cocatalysts for Photocatalytic Overall Water Splitting*", Angew. Chem. Int. Edit. **64**, e202513029 (2025).
- A. Yadav, P. K. Pathak, B. M. Matsagar, R. Patil, N. C.-R. Chen, R. R. Urkude, M. Ujihara, K. C.-W. Wu, R. R. Salunkhe*, and S. Dutta*, "*Interfacial-bulk Electrochemistry of Sodium-ion Storage in Multiwalled Carbon Nanofiber Anode with Incorporated Mn-N_4 Single-atoms*", Chem. Eng. J. **525**, 169716 (2025).
- Y. Yang, X. Yang, S. Zhao, Z. Liu*(劉志鵬), Y. Xiao*(趙毅), and L. Han*(韓麗麗), "*Incorporating SnS_x Species for Electroreduction of CO_2 Towards*

Formate", Appl. Surf. Sci. **689**, 162486 (2025).
- T. Ye, T. Liu, H. Yi, J. Du, Y. Wang, T. Xiao, and J. Cui*(崔金立), "*In Situ Arsenic Immobilization by Natural Iron (Oxyhydr)Oxide Precipitates in As-contaminated Groundwater Irrigation Canals*", J. Environ. Sci. - China **153**, 143 (2025).
- F.-Y. Yen, S.-I. Chang, Y.-C. Ting, C.-W. Chang, K.-A. Lee, and S.-Y. Lu* (呂世源), "*In-situ Selective Oxidation Created Cr_2O_3 Assisting CrMnFeCoNi for Ultrahigh Power Density Zinc-air Batteries*", Energy Mater. **5**, 500114 (2025).
- Y. Zeng, J. Zhao, S. Wang, W. Wang, Y.-R. Lu, S. Xi, W. Xu, Y. Yoda, R. Masuda, X. Li*(李旭寧), Y. Huang*(黃延強), B. Liu*(劉彬), and T. Zhang, "*Unraveling the Dynamic Low-spin State Evolution of Single-Fe-atom Sites for Efficient CO_2 Electroreduction*", J. Am. Chem. Soc. **147**, 42539 (2025).
- H. Zhang, J. Liu, Z. Xu, Y. Bu, T.-S. Wu, W.-M. Tu, Y.-L. Soo, C. Lin, Y. Zhu, Q. Lei*(雷瓊), J. Yin*(殷駿), and T. W. B. Lo*(勞子桓), "*Tailoring Cu-based Nanoalloys for Highly Selective Electrochemical Urea Synthesis from CO_2 and Nitrate*", ACS Catalysis **15**, 8966 (2025).
- L. Zhang, Y. Cai, Y. Li, C. Sun, Y. Xiao, Y. Yang, D. Chen, D. Xiao, C.-F. Lee, Y. Wang, S. Feng, H.-T. Wang, Y.-C. Shao, T.-S. Chan, H. Ishii, N. Hiraoka, X. Wang, J. Luo, and L. Han*(韓麗麗), "*Unlocking High-current-density Nitrate Reduction and Formaldehyde Oxidation Synergy for Scalable Ammonia Production and Fixation*", Energ. Environ. Sci. **18**, 2804 (2025).
- Q. Zhang, J. Zhou, C.-W. Kao, S. Gao, J. Li, Y.-R. Lu, D. Yuan*(袁定旺), N. Palaniyandy, and Y. Tan*(譚勇文), "*Interfacial Electronic Interactions Induced by Self-assembled Amorphous RuCo Bimetallenes/MXene Heterostructures for Nitrate Electroreduction to Ammonia*", Small **21**, 2502635 (2025).
- E. Zhao, J. Morales-Vidal, Y. Y.ang, S. Mitchell, Y. Zhu, Z. Hu, J.-M. Chen, S.-C. Haw, T.-S. Chan, Z. Fan, Z.-J. Wang*(王竹君), N. López*, J. Pérez-Ramírez*, and Z. Chen*(陳祖鵬), "*Diatomic Palladium Catalyst for Enhanced Photocatalytic Water-donating Transfer Hydrogenation*", J. Am. Chem. Soc. **147**, 2029 (2025).
- R. Zhao, Q. Wang, Y. Yao*(么艷彩), R. Wang, L. Zhao, Z. Hu, C.-W. Kao, T.-S. Chan, W. Li, Q. Zheng, J. Wang, X. Zou, K. Wang, J. Dai*(戴潔), X.-K. Gu* (顧向奎), and L. Zhang*(張禮知), "*Pd single Atoms Guided Proton Transfer Along an Interfacial Hydrogen Bond Network for Efficient Electrochemical Hydrogenation*", Sci. Adv. **11**, eadu1602 (2025).
- L. Zhou, H.-W. Tsai, T.-W. Kuo, J.-C. Kao, Y.-C. Lo, J.-M. Chang, T.-H. Chiang, S. Dai*(戴升), K.-W. Wang*(王冠文), and T.-Y. Chen*(陳燦耀), "*Atomic Layered ZnO Between Cu Nanoparticles and a PVP Polymer Layer Enable Exceptional Selectivity and Stability in Electrocatalytic CO_2 Reduction to C_2H_4*", Adv. Sci. **12**, 2501642 (2025).
- S. Zhu, X. Hou, H. Ma, H. Fu, J.-L. Chen, T.-Y. Chen, Z. Dang, and C. Feng* (馮春華), "*Intrinsic Activity of Organic Acids Controlling Photochemical Behavior and Transformation of Schwertmannite in Acid Mine Drainage*", Chem. Geol. **674**, 122569 (2025).
- Y. Zhu, F. Wu, X. Zhang, Y. Lin*(林貽超), L. Zhang, T.-S. Chan, Q. Zhang* (張秋菊), and L. Chen*(陳亮), "*Engineering Lattice Distortion in Ruthenium Oxide Enables Robust Acidic Water Oxidation via Direct O-O Coupling*", Adv. Mater. **37**, 2500449 (2025).
- M. Zou, Y. Chen, K. Wang, Y. Liu, X. Qiu, M. Liu, and W. Li*(李文章), "*Amine-functionalized SnO_x/C-decorated Silicon Nanowires for Boosted Photoelectrocatalytic CO_2 Reduction to Formic Acid*", Mater. Today Chem. **50**, 103153 (2025).

TLS 01C2 SWLS – X-ray Powder Diffraction

- B. Bazri, J.-Y. Huang, C.-E. Liu, S.-C. Liao, D.-H. Wei*(魏大華), S.-F. Hu* (胡淑芬), and R.-S. Liu*(劉如熹), "*Spatially Controlled Lithium Utilization in Anode-free All-solid-state Batteries via Diffusive Interface*", Nano Energy **142**, 111222 (2025).
- D. Bhalothia, C. Yan, Y. Wu, J.-C. Kao, Y.-C. Lo, H. Li, N. Hiraoka, H. Ishii, Y.-F. Liao, S. Dai*(戴升), C.-H. Wang, A. Hu, J.-P. Chou, P.-C. Chen*(陳柏均), and T.-Y. Chen*(陳燦耀), "*Local Collaboration Between Oxygen Vacancy, Palladium and Platinum Trimer Triggers Exceptional Performance in the Alkaline Fuel Cell*", Chem. Eng. J. **522**, 167605 (2025).
- H.-W. Chang, T. Yang, C. Yan, P.-H. Chiu, C.-Y. Wu, H.-W. Yen, D. Bhalothia*, K.-W. Wang, P.-C. Chen*(陳柏均), and T.-Y. Chen*(陳燦耀), "*Oxidized Ti Single Atoms and Co_3O_4 with Abundant Oxygen Vacancies Collaborating with Adjacent Pd Sites for an Efficient and Stable Oxygen Reduction Reaction*", Adv. Sci. **12**, 2417789 (2025).
- H. Chen, H.-W. Liu, Y.-C. Lu, P.-J. Yu, C.-H. Liao, C.-C. Wang, T.-S. Chan, H.-S. Sheu, P.-Y. Chang, J.-L. Chen, S.-C. Haw, G.-C. Yin, Y.-F. Song, C.-W. Pao, and N.-L. Wu*(吳乃立), "*Realizing Practical Use of $LiNiO_2$ Cathode in Halide-based All-solid-state Lithium Metal Batteries*", Chem. Eng. J. **519**, 165314 (2025).
- K.-C. Chen, M.-H. Huang, W.-T. Huang, M. Kaminski, D.-H. Cherng, K.-M. Lu, G. Leniec*, S. Mahlik*, and R.-S. Liu*(劉如熹), "*Tuning Shortwave Infrared Emission Wavelengths by Chemical Pressure in Cr^{3+},Ni^{2+} Co-doped Spinel Phosphors*", Adv. Opt. Mater. **13**, 2500393 (2025).
- K.-C. Chen, Y.-H. Hsiao, C.-L. Chien, W.-T. Huang, N. Majewska, M. R. Mazurek, T. Lesniewski, S. Mahlik, G. Leniec, D.-H. Cherng, K.-M. Lu, S.-L. Huang*(黃升龍), and R.-S. Liu*(劉如熹), "*Bifunctional Energy Efficient $(Ga,Ge)_2O_3$:Cr^{3+},Ni^{2+} Phosphor for Shortwave Infrared Optical Applications*", ACS Energ. Lett. **10**, 3050 (2025).
- P.-H. Chen, Y.-H. Chen*(陳燕華), M.-C. Hsieh, Y.-W. Huang, C.-C. Huang, W.-T. Jiang, J.-J. Lee, Y.-C. Lee, and H.-S. Sheu, "*Fault Materials and Creep Characteristics in Mudstone Areas: A Case Study of Chegualin Fault in Southwestern Taiwan*", Eng. Geol. **350**, 108020 (2025).
- Y.-C. Chen, L.-C. Chang, Y.-L. Liu, M.-C. Chang, Y.-F. Liu, P.-Y. Chang, D. Manoharan, W.-J. Wang, J.-S. Chen, H.-C. Wang, W.-T. Chiu*(邱文泰), W.-P. Li*(李偉鵬), H.-S. Sheu*(許火順), W.-P. Su*(蘇文彬), and C.-S. Yeh* (葉晨聖), "*Redox Disruption Using Electroactive Liposome Coated Gold Nanoparticles for Cancer Therapy*", Nat. Commun. **16**, 3253 (2025).
- B. D. Dandena, W.-N. Su*(蘇威年), D.-S. Tsai, Y. Nikodimos, B. W. Taklu, H. K. Bezabh, G. B. Desta, S.-C. Yang, K. Lakshmanan, H.-S. Sheu, C.-H. Wang, S.-H. Wu, and B. J. Hwang*(黃炳照), "*Li-Sb Alloy Formation Strategy to Improve Interfacial Stability of All-solid-state Lithium Batteries*", Small Methods **9**, 2400571 (2025).
- B. D. Dandena, L.-T. Wu, T.-I. Yeh, C.-Y. Chang, J.-C. Jiang, D.-S. Tsai, M. Ihrig, G. G. Serbessa, S.-C. Yang, K. Lakshmanan, H.-S. Sheu, C.-H. Wang, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Intrinsically-ductile Argyrodite Solid Electrolytes to Improve the Performance of All-solid-state Lithium Batteries*", Chem. Eng. J. **512**, 162450 (2025).
- V. R. Dharmaraj, A. Sarkar, J.-Y. Huang, S.-C. Huang, C.-L. Kuo*(郭錦龍), C.-C. Wu, W.-S. Chang, H.-C. Chen, Y.-P. Lin, C.-C. Kaun*(關肇正), R.-J. Chung*(鍾仁傑), and R.-S. Liu*(劉如熹), "*Superionic Quasi-solid-state Electrolyte for Rechargeable Magnesium-oxygen Batteries*", ACS Mater. Lett. **7**, 1440 (2025).
- Y. Fan, X. Ye, J. Zhou, D. Lu, C.-Y. Kuo, Y.-C. Huang, T.-S. Chan, C.-T. Chen, Y. Long*(龍有文), J.-Q. Wang*(王建強), Z. Hu*(胡志偉), and L. Zhang* (張林娟), "*Combined In Situ X-ray Spectroscopic and Theoretical Study on Trimetal Synergistic Enhancement of Water Oxidation*", Adv. Energy Mater. **15**, 2404599 (2025).
- Y. Fan, J. Zhao, J. Zhou, W.-H. Huang, J. Zhu, C.-Y. Kuo, S. Zhang, C.-W. Pao, T.-S. Chan, Y. Zhang, S.-Y. Hsu, J.-M. Chen, C.-T. Chen, C. Jin, L. H. Tjeng, J.-Q. Wang*(王建強), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Self-assembled Metal Cluster/Perovskite Catalysts for Efficient Acidic Hydrogen Production with an Ultra-low Overpotential of 62 mV and Over 1500 Hours of Stability at 1 A cm^{-2}*", Energ. Environ. Sci. **18**, 7527 (2025).
- A. T. Fenta, Y. Nikodimos, S. K. Merso, A. Meniber, M. A. Weret, K. N. Shitaw, B. W. Taklu, F. Valencia, T.-I. Yeh, C. L. Hsieh, C.-Y. Chang, Y.-J. Liu, C. Y. Chen, H.-H. Su, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Boosting Anode Interfacial Stability in All-solid-state Lithium Hybrid Batteries with MCMB-modified Stainless Steel Current Collector*", Chem. Eng. J. **510**, 161439 (2025).
- C.-Y. Huang, R.-C. Wang, T.-S. Hsu, T.-N. Hung, M.-Y. Shen, C.-H. Chang, and H.-C. Wu*(吳亘承), "*Developing an E. coli-based Cell-free Protein Synthesis System for Artificial Spidroin Production and Characterization*", ACS Synth. Biol. **14**, 1829 (2025).
- G.-L. Huang, K.-Y. Ting, N. Narayanam, D.-R. Wu, T.-E. Hsieh, K.-C. Tsai, D.-W. Yang, Q.-X. Tang, B.-K. Su, Y.-T. Kang, S.-J. Huang, C.-H. Chen, Y.-P. Chang, L.-S. Yang, Y.-C. Chao, E. Y.-T. Li*(李祐慈), and Y.-H. Liu*(劉沂欣), "*Unexpected Magnetic Moments in Manganese-doped $(CdSe)_{13}$ Nanoclusters: Role of Ligands*", Angew. Chem. Int. Edit. **64**, e202420257 (2025).
- J.-Y. Huang, K. Iputera, Y.-T. Lin, Y.-T. Hung, Y.-S. Liu, Y.-P. Chang, B. Bazri, B.-H. Liu, D.-H. Wei*(魏大華), B.-Y. Jin*(金必耀), and R.-S. Liu*(劉如熹), "*Exploring Dehydration Mechanisms and Conductivity Optimization in $Li_3InCl_6.xH_2O$ via in Situ Synchrotron Techniques*", J. Mater. Chem. A **13**, 2895 (2025).
- J.-Y. Huang, Y.-C. Wen, Y.-T. Lin, P.-J. Chu, Y.-S. Liu, H.-Z. Wang, Y.-P. Chang, Y.-T. Hung, D.-H. Wei*(魏大華), B.-Y. Jin*(金必耀), and R.-S. Liu*(劉如熹), "*Multifunctional Dual-doping Strategy Improving Halide-based Solid-state Electrolyte*", Adv. Energy Mater. **15**, e03135 (2025).
- W.-T. Huang, Y.-S. Chen, Y.-H. Lin, A. Lazarowska, N. Majewska, S. Mahlik, G. Leniec, H.-Y. Huang, A. Singh, D.-J. Huang, P. Fu, Z. Xiao*(肖澤文), and R.-S. Liu*(劉如熹), "*Rational Design of Organic Manganese Halides for High Quantum Efficiency and Stability*", Small **21**, 2501075 (2025).
- J.-W. Kang, H.-C. Cheng, H.-J. Chen, S.-C. Huang, C.-H. Lee, C.-L. Kuo, S.-Y. Yu, H.-L. Wu, C.-C. Lin, C.-H. Kuo, H.-H. Chang, C.-W. Hu, S.-C. Haw*(何樹智), H.-Y. T. Chen*(陳馨怡), and H.-Y. Chen*(陳翰儀), "*P_2-$Na_{0.61}Ca_{0.03}[Mg_{2/9}Cu_{1/9}Mn_{2/3}]O_2$ as a High-energy Oxygen Redox Cathode for Na-ion Batteries: Investigation of Cu Substitution and Ca Doping to Enhance Cycling Stability*", Adv. Funct. Mater. **35**, 2504642 (2025).

- R. A. N. Khasanah, C.-H. Lee, H.-L. Hsiao, T.-S. Lim, P.-Y. Chang, H.-S. Sheu, R. Yudianti, and F. S.-S. Chien*(簡世森), "*Physicochemical Responses at a Cu_2O/Electrolyte Interface to Electrostatic and Electrochemical Potentials in Photocatalytic Water Oxidation*", Surf. Interfaces **66**, 106548 (2025).
- Y.-H. Lai, Y.-J. Huang*(黃逸仁), L.-P. Chen, T.-N. Lam, W.-C. Ko, C.-J. Su, and C.-C. Wang, "*High Sensitivity Flexible Hybrid P(VDF-TrFE-CTFE)/ZnO Sensors for Elbow and Knee Rehabilitation Monitoring*", Polymer **332**, 128505 (2025).
- C.-H. Lee*(李其紘), C.-Y. Lin, and G.-Y. Chen, "*Uniaxial Zero Thermal Expansion in Low-cost Mn_2OBO_3 from 3.5 to 1250 K*", Mater. Today Phys. **51**, 101650 (2025).
- C.-H. Liao, M.-Y. Shen, Y.-J. Wang, T.-Y. Yu, R.-J. Jeng, T.-I. Yang, M. B. Dickerson, C.-S. Hung, J. S. Knopp, H.-C. Wu*(吳亘承), and S.-H. Tung*(童世煌), "*Weaving Strength and Conductivity: Spider Silk-modulated Polymer Electrolytes for High-performance All-solid-state Lithium-metal Batteries*", J. Mater. Chem. A **13**, 36072 (2025).
- H.-Y. Lin, H.-C. Lu, C.-H. Tsai, H.-J. Liu, P.-W. Chung, W.-T. Chuang*(莊偉綜), and C.-L. Wang*(王建隆), "*The Roles of Molecular Concavities in the Hierarchical Self-assembly of Giant Tetrahedra for CO_2 Uptake*", Chem.-Eur. J. **31**, e202403348 (2025).
- H.-W. Liu, H. Chen, S. Thi, P.-J. Yu, J.-L. Chen, C.-W. Pao, P.-Y. Chang, S.-C. Haw, Y.-F. Liao, Y.-C. Shao, G.-C. Yin, Y.-F. Song, S.-K. Parthasarathi, Y.-T. Weng, and N.-L. Wu*(吳乃立), "*High-capacity Ni-rich Composite Cathodes Having Chemically Fused Interface with Li_3InCl_6 Electrolyte Towards Low-pressure Operating All-solid-state Li-ion Batteries*", Compos. Pt. B-Eng. **293**, 112133 (2025).
- C. Lu, S. Wu*(伍松林), L. Ma, F. You, N. Saha, H. Bu, J. Fernando, D. Parry, L. Thomsen, T.-S. Chan, and L. Huang*(黃隆斌), "*Haloalkalitolerant Plants Drive Alkaline Mineral Weathering and Dealkalization of Seawater-treated Bauxite Residue*", Plant Soil **514**, 1993 (2025).
- W.-C. Pan, C.-H. Luo, W.-L. Lin, L.-C. Wang, D. Manoharan, P.-Y. Chang, H.-S. Sheu*(許火順), C.-H. Yeh*(葉丞豪), C.-J. Yen*(顏家瑞), and C.-S. Yeh*(葉晨聖), "*Enhanced Catalytic Cycle of Glucose Oxidation and Reactive Species with ROS and RHS Generation Mediated by Galvanic Engineering of Dual Atomic Sites on Covalent Organic Frameworks Demonstrating Synergistic Bimetal Tumor Treatment*", Adv. Sci. **12**, e00515 (2025).
- K.-S. Peng, Y.-J. Shen, Y.-C. Chang, Y.-C. Liu, C.-H. Chou, Y.-C. Chang, M.-H. Li, Y.-R. Lu, S.-H. Hsu, and S.-F. Hung*(洪嵩富), "*Effect of Electrolyte Cations on the Selectivity of Electrochemical CO_2 Reduction in a Flow Cell System*", J. Chin. Chem. Soc. **72**, 1319 (2025).
- Y.-J. Shen, Y.-H. Hsu, Y.-C. Chang, J.-J. Ma, K.-S. Peng, Y.-R. Lu, S.-H. Hsu, and S.-F. Hung*(洪嵩富), "*Microenvironment Matters: Copper-carbon Composites Enable a Highly Efficient Carbon Dioxide Reduction Reaction to C_2 Products*", ACS Appl. Mater. Interfaces **17**, 9378 (2025).
- P. Srivastava, B. Bazri, D. K. Maurya, Y.-T. Hung, D.-H. Wei*(魏大華), and R.-S. Liu*(劉如熹), "*Green Strategy for Li_2CO_3 Regulation in Garnet-type Solid-state Electrolytes via Acoustic Cavitation*", ACS Energ. Lett. **10**, 10725 (2025).
- E. B. Tamilarasan, Y.-C. Huang, T. Agnihotri, T.-I. Yeh, Y. Nikodimos*, E. A. Moges, S. A. Ahmed, R. Hasan, A. V. Saravanan, B. W. Taklu, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Probing Li_2S Activation Mechanism in Lithium-sulfur Batteries via Multimodal Operando Techniques*", ACS Energ. Lett. **10**, 6390 (2025).
- F.-Z. Tian, W.-J. Chang, P.-J. Liang, Y.-A. Lai, C.-S. Hsu, S.-C. Lin, Y.-H. Chen, Y.-C. Chu, S.-W. Huang*(黃詩雯), H.-L. Chen*(陳輝龍), and H. M. Chen*(陳浩銘), "*Charge Redistribution Dynamics in Chalcogenide-stabilized Cuprous Electrocatalysts Unleash Ampere-scale Partial Current Toward Formate Production*", Nat. Commun. **16**, 9426 (2025).
- Y.-T. Tsai, C.-W. Wu, R.-J. Chung, G. N. A. De Guzman, G.-J. Li, J. L. Leaño Jr., and M.-H. Fang*(方牧懷), "*Optical Labeling with Artificial Intelligence Using Infrared-responsive Functional Textiles*", ACS Appl. Mater. Interfaces **17**, 58532 (2025).
- H. Wei, C. Wang, X. Ye, L. Gao, T. Wang, W.-H. Huang*(黃偉翔), C. Feng*(馮聰), W.-S. Liao, M.-H. Yeh, G.-X. Miao, and J. Fu*(傅婧), "*Surface Electric Field Shielding for Passivation-free Zinc Anode Dissolution in Alkaline Batteries*", Small **21**, 2502237 (2025).
- P.-C. Wei, Y.-S. Tseng, H.-Y. Tseng, S.-J. Wu, J.-K. Hu, T.-Y. Yung, T.-C. Chen, H.-C. Wu, C.-M. Wu, and W.-H. Li*(李文献), "*Thermally Sensitive Infra-red Absorption Bands and Lattice Incommensurability in Photoelectric $(CH_3NH_3)PbI_3$*", Phys. Rev. Mater. **9**, 055401 (2025).
- C.-Y. Wu, C.-E. Huang, A.-C. Luo, W.-H. Lu, S.-C. Huang, Y.-M. Huang, V. K. Peterson, H.-Y. Liu, C.-L. Chen, Y.-R. Lu, T.-Y. Chen, C.-Z. Lu*(陸成章), W. K. Pang*, and H.-Y. Chen*(陳翰儀), "*Enabling High-performance and High-ratecapability $Na_4MnV(PO_4)_3$ Sodium-ion Battery Cathodes Through Tuning the NASICON Framework*", J. Mater. Chem. A **13**, 2716 (2025).
- B.-X. Zhong, L.-T. Chen, C.-Y. Lo, P.-Y. Chang, W.-T. Chuang*(莊偉綜), and C.-L. Wang*(王建隆), "*Designing Extrinsic Porosity in Supramolecular Organic Frameworks: Structural Control with Giant Tetrahedral Molecules*", J. Chin. Chem. Soc. **72**, 1119 (2025).
- L. Zhou, H.-W. Tsai, T.-W. Kuo, J.-C. Kao, Y.-C. Lo, J.-M. Chang, T.-H. Chiang, S. Dai*(戴升), K.-W. Wang*(王冠文), and T.-Y. Chen*(陳燦耀), "*Atomic Layered ZnO Between Cu Nanoparticles and a PVP Polymer Layer Enable Exceptional Selectivity and Stability in Electrocatalytic CO_2 Reduction to C_2H_4*", Adv. Sci. **12**, 2501642 (2025).

TLS 03A1 BM – (HF-CGM) Photoabsorption/ Photoluminescence

- S.-L. Chou, S.-Y. Lin, Y.-H. Wu, T.-P. Huang, M.-Y. Lin, Y.-Y. Lee, S.-C. Weng*(翁世璋), H.-F. Chen*(陳慧芬), and Y.-J. Wu*(吳宇中), "*A Novel Method for Synthesis of Graphene Oxide Thin-film Utilizing Vacuum UV Exposure*", Opt. Mater. **160**, 116697 (2025).
- Y. Y. Hui, C.-Y. Ho, T.-I. Yang, T.-P. Huang, B.-M. Cheng, Y.-Y. Lee, and H.-C. Chang*(張煥正), "*Fluorescent Nanodiamond Scintillators for Beam Diagnostics of EUV and Soft X-ray in Photolithographic Applications*", RSC Adv. **15**, 1011 (2025).
- T.-H. Lee, S.-L. Chou, T.-P. Huang, C.-M. Liu, C.-H. Chin, M.-Y. Lin, H.-F. Chen*(陳慧芬), and Y.-J. Wu*(吳宇中), "*Spectroscopic Signatures of Interfacial Energy Transfer in MoS_2-based van der Waals Heterostructures Under Deep-UV Excitation*", RSC Adv. **15**, 37183 (2025).
- S.-Y. Lin, S.-L. Chou, W.-J. Huang, C.-H. Chin, C.-M. Tseng*(曾建銘), and Y.-J. Wu*(吳宇中), "*Visible Absorption Spectra of Mass-selected Cyanobenzene and Iso-cyanobenzene Cations in Solid Neon*", Phys. Chem. Chem. Phys. **27**, 25405 (2025).
- S. Thakur, T. Arul K, S.-L. Chou, C.-L. Dong, and A. Kandasami*, "*Fabrication of WSe_2 Thin Film by RF Sputtering: Structural and Optical Characterizations*", Opt. Mater. **162**, 116772 (2025).

TLS 05B1 EPU – Soft X-ray Chemistry

- T.-F. Shen, Y.-J. Chiang, Y.-S. Lin, C.-L. Liu*(劉振霖), Y.-C. Wang, K.-Y. Chou, C.-C. Tsai, and W.-P. Hu*(胡維平), "*Near-edge X-ray Absorption Fine-structure Spectra and Specific Dissociation of Phe-Gly and Gly-Phe*", Int. J. Mol. Sci. **26**, 2515 (2025).

TLS 07A1 IASW – X-ray Scattering

- T. Chen, Y. Li, P.-L. Ho, K. C. Leung, J. Liu, C. K. T. Wun, Z. Li, C. C. Tang, S. Kawaguchi, T.-S. Wu, Y.-L. Soo, J. Yin*(殷駿), S. C. E. Tsang*(曾遠之), and T. W. B. Lo*(勞子桓), "*Unraveling the Nuclearity Effect of Atomically Choreographed Triatom Cu_3 Clusters Supported on Zeolites*", J. Am. Chem. Soc. **147**, 17170 (2025).
- Y.-S. Hsiao*(蕭育生), J.-H. Huang, S.-A. Liu, J.-H. Huang, L.-Y. Weng, S.-W. Liao, C.-W. Hu, W. K. Pang, S.-C. Hsu*(許世杰), H. C. Weng*(翁輝竹), and Y.-C. Huang*(黃裕清), "*Designing Core-shell $LiNi_{0.5}Mn_{1.5}O_4$-based Cathode Materials with Enhanced Rate Capability and Improved Cycling Stability*", Appl. Surf. Sci. **684**, 161892 (2025).
- T. Wu, X. Wang, Q. Yang, B. Wang, R. Yang, S.-A. Chen, L.-Y. Chang, S. Wang, F. Huang*(黃富強), Z. Wang*(王子運), and Y. Lum*(林彥瑋), "*Modulating Single-atom Pt Coordination for Enhanced Low-temperature Ammonia Fuel Cell Electrocatalysis*", Adv. Mater. **37**, e08371 (2025).
- R. Yi, X. Mo, H. T. Yau, T. Zhou, Z. Guo, S.-C. Haw, and E. C. M. Tse*(謝俊銘), "*Interlayer Expansion Enables Electrochemical Domino C-N Coupling for Formaldoxime Formation in Aqueous Media*", J. Am. Chem. Soc. **147**, 32809 (2025).
- J. Zhang, X. Zhai, T. Zhao, X. Yang, Q. Wang, Z. Chen, M.-C. Chen, J.-J. Ma, Y.-R. Lu, S.-F. Hung, and W. Hua*(滑緯博), "*What Impact Does Ammonia Have on the Microstructure of the Precursor and the Electrochemical Performance of Ni-rich Layered Oxides?*", J. Mater. Chem. A **13**, 1181 (2025).
- T. Zhao, J. Zhang, K. Wang, Y. Xiao*(肖遥), Q. Wang, L. Li, J. Tseng, M.-C. Chen, J.-J. Ma, Y.-R. Lu, I. Hirofumi, Y.-C. Shao, X. Zhao*(趙孝先), S.-F. Hung, Y. Su, X. Mu, and W. Hua*(滑緯博), "*Exploring the Mechanism of Surface Cationic Vacancy Induces High Activity of Metastable Lattice Oxygen in Li- and Mn-rich Cathode Materials*", Angew. Chem. Int. Edit. **64**, e202419664 (2025).

TLS 08A1 BM – (L-SGM) XPS, UPS

- W. Chang, K.-T. Yeh, B. J. Lin, P.-J. Wu, J.-Y. Chun, J.-R. Shih, C. J. Lin, and Y.-C. King*(金雅琴), "*A Self-powered Wireless Sensing Circuitry for On-wafer In-situ EUV Detection*", IEEE Trans. Semicond. Manuf. **38**, 858 (2025).
- A. R. Shelke, C. N. Kuo, S. K. Pandey, T. L. Nguyen, Y. X. Chen, Y. T. Cheng, F. H. Chang, M. Yoshimura, N. Hiraoka, T. W. Pi, H. J. Lin, C. T. Chen, A. Fujimori, P. Mahadevan, C. S. Lue, and A. Chainani*(查里), "*Electron Spectroscopy Study of Single-crystal CrTe*", Phys. Rev. B **111**, 085142 (2025).

TLS 08B1 BM – AGM

- T.-P. Huang, Y.-H. Yang, Y.-C. Lin, Y.-J. Su, Y.-Y. Lee, Y.-T. Kang, H.-W. Shiu, M.-Y. Hsu, G.-C. Yin, C.-J. Weng, G.-H. Lu, C.-H. Hwang, W.-T. Hsiao, Y.-Y. Hui, H.-C. Chang, and T.-I. Yang*(楊騰毅), "*Development of Fluorescent Diamond Sensors for EUV/Soft X-ray Imaging*", J. Phys.-Conf. Ser. **3010**, 012169 (2025).
- Y. Y. Hui, C.-Y. Ho, T.-I. Yang, T.-P. Huang, B.-M. Cheng, Y.-Y. Lee, and H.-C. Chang*(張煥正), "*Fluorescent Nanodiamond Scintillators for Beam Diagnostics of EUV and Soft X-ray in Photolithographic Applications*", RSC Adv. **15**, 1011 (2025).
- M. Pi, J. Yang, J. Zhang, X. Ye, X. Wang, L. He, Z. Hu, C.-T. Chen, C.-Y. Kuo, Z. Pan, Y. Shen*(沈瑤), and Y. Long*(龍有文), "*Observation of Robust Compressed CuO_6 Octahedra and Exotic Spin Structure in $CaCuFe_2O_5$*", J. Am. Chem. Soc. **147**, 4403 (2025).
- T.-I. Yang, Y. Y. Hui, P.-J. Wu, T.-P. Huang, B.-M. Cheng, Y.-Y. Lee, and H.-C. Chang*(張煥正), "*Light Yields of Diamonds with Nitrogen-vacancy Centers as Scintillators for Ionizing Radiation from 80 to 1200 eV*", J. Phys. Chem. C **129**, 2739 (2025).
- Y.-H. Yang, Y.-T. Kang, T.-P. Huang, Y.-Y. Lee, Y.-C. Lin, P.-J. Wu, G.-H. Lu, C.-J. Weng, C.-H. Hwang, W.-T. Hsiao, C.-C. Kei, W.-H. Cho, C.-Y. Chang, H.-C. Chang, and T.-I. Yang*(楊騰毅), "*Eco-friendly, High-resolution Fluorescence Diamond-based Broadband EUV and X-Ray Beam Profiler System*", IEEE International Instrumentation and Measurement Technology Conference (I2MTC), Chemnitz, Germany (2025).

TLS 09A1 U50 – SPEM

- C. O. M. Mariano, K.-H. Chen, J. Shiue, H. Yuzawa, T. Araki, K. T. Arul, C.-L. Dong, T.-Y. Yung, S.-C. Hsu, X. Cai, S.-H. Hsieh*(謝尚憲), and C.-H. Chuang*(莊程豪), "*Hexagonal BN Membranes Formation by Liquid-phase Synthesis: Insights from Scanning Transmission X-ray Microscopy*", APL Mater. **13**, 101118 (2025).
- P. L. Yadav, P. Joshi, V. C. Lokhande, C.-F. Lee, S.-H. Hsieh, H.-T. Wang, Y.-C. Shao, C.-W. Pao, C.-H. Chen, J. B. Yadav, M. P. Ghimire, N. G. Deshpande, and R. B. Patil*, "*Revisiting the Electronic Structure of α-MnO_2 for Energy Storage Application*", J. Phys. Chem. C **129**, 2619 (2025).

TLS 09A2 U50 – Spectroscopy

- S. L. Cheng, H. W. Shiu, Y.-L. Lai, K.-Y. Chiu, J.-H. Wang*(王禎翰), Y.-Y. Chin*(秦伊瑩), Y.-H. Hsieh, L.-C. Yu, W.-T. Chen, T.-H. Chuang, D.-H. Wei, and Y.-J. Hsu*(許瑤真), "*Magnetic Exchange Interaction at the Heterostructure of Tris(8-hydroxyquinoline)Iron with Different Coordination Symmetry and Valence States on Ni Ferromagnetic Surface*", Appl. Surf. Sci. **710**, 163903 (2025).
- Y.-Y. Hsia, T.-Y. Liu, Y.-L. Lai, Y.-J. Hsu, J.-H. Wang*(王禎翰), and M.-F. Luo*(羅夢凡), "*Dependence on Size of Supported Rh Nanoclusters in the Decomposition of Ethanol*", J. Phys. Chem. C **129**, 2502 (2025).
- J.-W. Hsueh, L.-H. Kuo, P.-H. Chen, W.-H. Chen, C.-Y. Chuang, C.-N. Kuo, C.-S. Lue, H.-W. Shiu, B.-H. Liu, C.-H. Wang, Y.-J. Hsu, C.-L. Lin*(林俊良), J.-P. Chou*(周至品), and M.-F. Luo*(羅夢凡), "*Decomposition of Methanol Activated by Surface Under-coordinated Pd on Layered $PdTe_2$*", Phys. Chem. Chem. Phys. **27**, 9336 (2025).
- Y.-L. Li, T.-Y. Liu, G.-C. Liu, Y.-Y. Hsia, Y.-L. Lai, H.-W. Shiu, Y.-J. Hsu, J.-H. Wang*(王禎翰), and M.-F. Luo*(羅夢凡), "*Surface Structures of Au and Rh Deposited on O-pre-adsorbed Cu(110)*", J. Chem. Phys. **163**, 024705 (2025).
- Y.-H. Lin, K.-Y. Tong, S.-P. Chuang, M. Yılmaz, C.-Y. Chiang, and M.-J. Deng*(鄧名傑), "*3.3V Customizable, Recyclable, and Remanufacturable Flexible Symmetric Supercapacitors*", J. Alloy. Compd. **1016**, 179025 (2025).

TLS 11A1 BM – (Dragon) MCD, XAS (PRT 75%)

- S. Chen, F.-H. Gong, X. Li, Y.-C. Ku, C.-E. Liu, Y. Nie, Y. Si, S. Yuan, J. Lu, H.-J. Qiu, K. Hu, K. Li, Y. Huang, C.-Y. Xu, K. H. Zhang, Y.-L. Tang, L. Chen, C.-F. Chang, Z. Hu, S. Das, X. L. Ma*(馬秀良), C.-Y. Kuo*(郭昌洋), and Z. Chen*(陳祖煌), "*Unleashing Electrocatalytic Oxygen Evolution Activity: Engineering Spin States in Strained Correlated Oxides for Enhanced Performance*", ACS Nano **19**, 23647 (2025).
- S. L. Cheng, H. W. Shiu, Y.-L. Lai, K.-Y. Chiu, J.-H. Wang*(王禎翰), Y.-Y. Chin*(秦伊瑩), Y.-H. Hsieh, L.-C. Yu, W.-T. Chen, T.-H. Chuang, D.-H. Wei, and Y.-J. Hsu*(許瑤真), "*Magnetic Exchange Interaction at the Heterostructure of Tris(8-hydroxyquinoline)Iron with Different Coordination Symmetry and Valence States on Ni Ferromagnetic Surface*", Appl. Surf. Sci. **710**, 163903 (2025).
- Y. Cheng*, H. Huang, J. Tang, J. Lanier, K. Lazareno, H.-K. Chang, S.-J. Chiu, C.-Y. Yang, F. Yang, R. Cheng, and K. L. Wang*(王康隆), "*Observation of Real-time Spin-orbit Torque Driven Dynamics in Antiferromagnetic Thin Film*", Adv. Mater. **37**, 2417240 (2025).
- C.-W. Chuang*, T. Kawakami, K. Sugawara, K. Nakayama, S. Souma, M. Kitamura, K. Amemiya, K. Horiba, H. Kumigashira, G. Kremer, Y.-F. Revurat, D. Malterre, C. Bigi, F. Bertran, F. H. Chang, H. J. Lin, C. T. Chen, T. Takahashi, A. Chainani*(查里), and T. Sato*, "*Spin-valley Coupling Enhanced High-T_C Ferromagnetism in a Non-van Der Waals Monolayer Cr_2Se_3 on Graphene*", Nat. Commun. **16**, 3448 (2025).
- H.-D. Dai, H.-B. Sun*(孫華斌), Y.-N. Jiang, Y.-W. Chen, X.-K. Ding, C.-T. Chen, C.-Y. Kuo, Z.-W. Hu, L.-L. Zhang*(張璐璐), and X.-L. Yang*(楊學林), "*Deciphering the Impact of Graphene Oxide Incorporation on Structural, Chemical, and Electrochemical Properties of $Na_2Fe(SO_4)_2$ Cathode Materials*", Nano Lett. **25**, 6855 (2025).
- L. Du, G. Xu*(許高洁), C. Sun, Y.-H. Zhang, H. Zhang*(張煥瑞), T. Dong*(董甜甜), L. Huang, J. Ma, F. Sun, C. Li, X. Zhuang, S. Zhang, J. Li, B. Xie, J. Wang, J. Zhao, J. Ju, Z. Hu, F.-H. Chang, C.-Y. Kuo, C.-T. Chen, A. Hilger, I. Manke, S. Dong, and G. Cui*(崔光磊), "*Smart Gel Polymer Electrolytes Enlightening High Safety and Long Life Sodium Ion Batteries*", Nat. Commun. **16**, 2979 (2025).
- Y. Fan, X. Ye, J. Zhou, D. Lu, C.-Y. Kuo, Y.-C. Huang, T.-S. Chan, C.-T. Chen, Y. Long*(龍有文), J.-Q. Wang*(王建強), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Combined In Situ X-ray Spectroscopic and Theoretical Study on Trimetal Synergistic Enhancement of Water Oxidation*", Adv. Energy Mater. **15**, 2404599 (2025).
- Y. Fan, J. Zhao, J. Zhou, W.-H. Huang, J. Zhu, C.-Y. Kuo, S. Zhang, C.-W. Pao, T.-S. Chan, Y. Zhang, S.-Y. Hsu, J.-M. Chen, C.-T. Chen, C. Jin, L. H. Tjeng, J.-Q. Wang*(王建強), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Self-assembled Metal Cluster/Perovskite Catalysts for Efficient Acidic Hydrogen Production with an Ultra-low Overpotential of 62 mV and Over 1500 Hours of Stability at 1 A cm^{-2}*", Energ. Environ. Sci. **18**, 7527 (2025).
- D. Guan, H. Xu, Y.-C. Huang, C. Jing, Y. Tsujimoto, X. Xu, Z. Lin, J. Tang, Z. Wang, X. Sun, L. Zhao, H. Liu, S. Liu, C.-T. Chen, C.-W. Pao, M. Ni, Z. Hu*(胡志偉), and Z. Shao*(邵宗平), "*Operando Studies Redirect Spatiotemporal Restructuration of Model Coordinated Oxides in Electrochemical Oxidation*", Adv. Mater. **37**, 2413073 (2025).
- S. Guo, M. A. Tamerd*, C. Li, X. Shi, M. Yang, J. Hou, J. Liu, M. Tang, S.-C. Haw, C.-T. Chen, T.-S. Chan, C.-Y. Kuo, Z. Hu, L. Yang*(楊龍), and J. Ma*(馬吉偉), "*Activating Sodium Intercalation in Cation-deficient Fe_3O_4 Through Mo Substitution*", Small **21**, 2408212 (2025).
- J. Hou, T.-Y. Chen, M. A. Tamerd, J. Liu, W.-H. Huang, M. Hadouchi, Y. Zhu, X. Shi, S. Guo, M. Yang, Y. Shi, M. Tang, and J. Ma*(馬吉偉), "*Activating Fast and Reversible Sodium Storage in NASICON Cationic Defect Sites Through Fluorine Doping*", Nat. Commun. **16**, 2910 (2025).
- J. Ke, Y. Ji*(紀玉金), D. Liu, J. Chen, Y. Wang, Y. Li, Z. Hu, W.-H. Huang, Q. Shao*(邵琪), and J. Lu*(路建美), "*Optimizing Acidic Oxygen Evolution with Manganese-doped Ruthenium Dioxide Assembly*", ACS Appl. Mater. Interfaces **17**, 13 (2025).
- J. Ke, W. Zhu, Y. Ji*(紀玉金), J. Chen, C. Li, Y. Wang, Q. Wang, W.-H. Huang, Z. Hu, Y. Li, Q. Shao*(邵琪), and J. Lu*(路建美), "*Optimizing Acidic Oxygen Evolution Reaction via Modulation Doping in Van der Waals Layered Iridium Oxide*", Angew. Chem. Int. Edit. **64**, e202422740 (2025).
- Y.-S. Ku, C.-C. Chiang, S.-C. Mai, J.-Y. Chen, C.-W. Chen, Y.-Y. Chin, Y.-W. Lan, D. Qu, C. L. Chien, and S.-Y. Huang*(黃斯衍), "*Efficient Charge-to-spin Conversion in the Topological Superconductor β-Bi_2Pd at Room Temperature*", Phys. Rev. Appl. **24**, 034050 (2025).
- J. Li, S. Deng, L. Ma, Y. Si, C. Zhou, K. Wang, S. Huang, J. Yang, Y. Tang, Y.-C. Ku, C.-Y. Kuo, Y. Li, S. Das, S. Liu*(劉仕), and Z. Chen*(陳祖煌), "*Enhancing Ferroelectric Stability: Wide-range of Adaptive Control in Epitaxial HfO_2/ZrO_2 Superlattices*", Nat. Commun. **16**, 6417 (2025).
- Y. Li, J. Zhao, S. Zhang, Y. Fan, C.-Y. Kuo, Y.-C. Ku, T.-S. Chan, C.-W. Kao, Y.-C. Huang, C.-T. Chen, S.-C. Haw, C. Jin, H. Zhao, D. Ye*(葉代新), C. Jing*(靜超), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Hexavalent Ru Catalyst with Both Lattice Oxygen and Metal Ion Mechanisms Coactive for Water Oxidation*", J. Am. Chem. Soc. **147**, 26854 (2025).
- S. Liu, X. Ye, Z. Pan, J. Zhang, S. Tang, G. Zhang, M. Pi, Z. Hu, C.-T. Chen, T.-S. Chan, C. Dong, T. Cui, Y. Huang, Z. Chi*(遲振華), Y. Shen*(沈瑤), and Y. Long*(龍有文), "*High-pressure Synthesis of an Oxynitride Perovskite $CeNbO_2N$ with Nb^{4+} Charge State*", Chinese Phys. B **34**, 066202 (2025).
- A. R. Shelke, C. N. Kuo, S. K. Pandey, T. L. Nguyen, Y. X. Chen, Y. T. Cheng, F. H. Chang, M. Yoshimura, N. Hiraoka, T. W. Pi, H. J. Lin, C. T. Chen, A. Fujimori, P. Mahadevan, C. S. Lue, and A. Chainani*(查里), "*Electron Spectroscopy Study of Single-crystal CrTe*", Phys. Rev. B **111**, 085142 (2025).
- T. Wang, M. Zou, D. Zhang, Y.-C. Ku, Y. Zheng, S. Pan, Z. Ren, Z. Xu, H. Huang, W. Luo, Y. Tang, L. Chen, C.-E. Liu, C.-F. Chang, S. Das, L. Bellaiche, Y. Yang*(楊玉榮), X. Ma*(馬秀良), C.-Y. Kuo*(郭昌洋), X. Liu*(劉興軍), and Z. Chen*(陳祖煌), "*Large Enhancement of Properties in Strained Lead-free Multiferroic Solid Solutions with Strong Deviation from Vegard´s Law*", Matter

8, 101874 (2025).
- X. Wang*(王曉), F. Temnikov, X. Ye, M. Pi, Z. Pan, W. Li, Z. Hu, C.-T. Chen, C.-Y. Kuo, C. Dong, Y. Shen, W. Li, S. V. Streltsov*, and Y. Long*(龍有文), "*$CuCu_3Fe_2Os_2O_{12}$: A Room-temperature Ferrimagnet with Reduced Thermal Conductivity*", Inorg. Chem. **64**, 20796 (2025).
- X. Ye, Y. Yin, Y. Cao, Z. Liao, X. Wang, M. Liu, Q. Wang, Z. Pan, Z. Hu, H.-J. Lin, C. T. Chen, C.-W. Pao, P. Ohresser, L. Nataf, F. Baudelet, W. Yang, J. Yang, J. Cheng, P. Yu, X. Qiu, Y.-F. Yang, T. Xiang , and Y. Long*(龍有文), "*High-temperature Ferrimagnetic Order Triggered Metal-to-insulator Transition in $CaCu_3Ni_2Os_2O_{12}$*", Nat. Commun. **16**, 3746 (2025).
- X. You, H. Zhang, X. Xiong, Z. Hu, C.-Y. Kuo, F.-H. Chang, C.-T. Chen, Z. Li, W. Bian, C. Jing, J.-Q. Wang*(王建強), and L. Zhang*(張林娟), "*In Situ Self-assembled 200 nm-depth Highly Active Layer Non-precious Metals Catalyst for Industrial Water Electrolysis*", Small **21**, 2408495 (2025).
- H. Zhang, H. Xu, J. Chen, D. Guan*(管大秦), Z. Hu, X. Xu, Z. Lin, H. Sun, X. Sun, J. Tang, C.-W. Pao, C.-T. Chen, W. Zhou, C. Wang, Y. Guo*(郭友敏), and Z. Shao*(邵宗平), "*Self-optimized Interfacial Co-O-Ru Motifs of Hollow Nanotube Composites Trigger Interfacial Lattice Oxygen Participation and Diffusion*", ACS Nano **19**, 25917 (2025).
- H. Zhang, C. Jing, X. Xiong, S. Wang, X. You, Y. Guo, C.-Y. Kuo, H.-J. Lin, C.-T. Chen, J.-Q. Wang*(王建強), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Porous NiFe Alloy with Self-repair Surface Layer for Superior Industrial Water Electrolysis*", Appl. Catal. B-Environ. Energy **379**, 125697 (2025).
- J. Zhang, F. Temnikov, X. Ye, X. Wang, Z. Pan, Z. Liu, M. Pi, S. Tang, C.-T. Chen, C.-W. Pao, W.-H. Huang, C.-Y. Kuo, Z. Hu, Y. Shen, S. V. Streltsov, and Y. Long*(龍有文), "*Large Manipulation of Ferrimagnetic Curie Temperature by A-site Chemical Substitution in $ACu_3Fe_2Re_2O_{12}$ (A=Na, Ca, and La) Half Metals*", Inorg. Chem. **64**, 472 (2025).
- J. Zhang, X. Ye, X. Wang, Z. Pan, M. Pi, S. Tang, C. Dong, C.-T. Chen, J.-M. Chen, C.-Y. Kuo, Z. Hu, X. Shen*(沈希), X. Yu, Y. Shen, R. Yu, and Y. Long*(龍有文), "*Realization of Intrinsic Colossal Magnetoresistance in $Pb(Pb_{1/3}Hg_{2/3})_3Mn_4O_{12}$: An A Site-ordered Quadruple Perovskite Oxide*", J. Am. Chem. Soc. **147**, 12644 (2025).
- Z. Zhang, Y. Li, X. Shen, L. Yang, C. Zhang, Y. Liu, B. Wang, C.-Y. Kuo, S.-C. Haw, C.-T. Chen, C.-W. Pao, H.-Y. Huang, D.-J. Huang, J. Ju, J. Ma, Z. Hu, Y. Gao*(高玉瑞), X. Wang*(王雪鋒), R. Yu, Z. Wang*(王兆翔), and L. Chen, "*Breaking the Vicious Spiral to Suppress Oxygen Loss in Li-rich Oxide Cathode Materials*", Adv. Mater. **37**, 2505724 (2025).

TLS 13A1 SW60 – X-ray Scattering

- Y.-W. Chang, Y.-C. Liu, S.-W. Huang, J.-Y. Sun, S.-Z. Ho, W.-Y. Tzeng, C.-C. Chiu, Y.-C. Ku, P. Kaur, T. A. Butcher, C. Piamonteze, U. Staub, Y.-C. Chen, C.-F. Chang, C.-Y. Kuo, Y.-H. Chu, A. Kleibert, C.-W. Luo, and J.-C. Yang*(楊展其), "*Correlated Magnetic and Electrical Phenomena in Epitaxially Weaved Manganite Lateral Homostructures*", Small **21**, 2411424 (2025).
- P.-C. Chu, S.-Y. Kang, M.-L. Yu, Y.-P. Liu, Y.-H. Chen, Y.-C. Hsu, Hyeonseok Lee, C.-Y. Chiang*(蔣慶有), H.-Y. Chang, W.-H. Hung*(洪緯璿), and W.-C. Lin*(林煒淳), "*Ammonia Decomposition and Hydrogen Production via Novel FeCoNiCuMnO High-entropy Ceramic Catalysts*", npj Clean Water **8**, 92 (2025).
- T.-M. Hung, C.-C. Kang, T.-C. Lu, and C.-C. Shih*(石健忠), "*Tailoring Aggregation Behavior and Crystalline Structure of Stretchable Polymer Semiconductors via a Novel Lewis Acid Dopant*", Polym. J. **57**, 1227 (2025).
  - C.-C. Kang, T.-M. Hung, S.-T. Lu, T.-C. Lu, and C.-C. Shih*(石健忠), "*Dipole-tailored Isomeric Linker Enables Decoupling of Aggregation and Crystallinity in Conjugated Polymers for Stretchable Transistors and Photodiodes*", J. Am. Chem. Soc. **147**, 29282 (2025).
- C.-C. Lin, S. P. Prakoso, L. Laysandra, M.-H. Chang, H.-I. Jo, Y.-T. Li, K.-L. Chen, C.-Y. Chen, L. M. Cowen, E. Fujiwara, A. Nyayachavadi, S.-R. Gagné, B. C. Schroeder, S. Ando, W.-T. Chuang, J.-M. Lin*(林智敏), and Y.-C. Chiu*(邱昱誠), "*Altering the Microstructure of Conjugated Polymers in Solution via Microwave Irradiation*", Macromolecules **58**, 7605 (2025).
- C.-F. Lin, Y.-S. Wu, W.-C. Chen, B.-H. Lin, Y.-C. Lin*(林彥丞), C.-C. Kuo*(郭霽慶), and W.-C. Chen*(陳文章), "*Boosting the Photoresponse of Transistor Memory Utilizing the Ferroelectric Polarization Effect of Polyfluorene/PVDF-based Copolymer Blends*", ACS Appl. Electron. Mater. **7**, 1068 (2025).
  - C.-Y. Lin*(林哲儀), B.-C. Chen, Y.-C. Liu, S.-F. Kuo, H.-C. Tsai, Y.-M. Chang*(張原銘), C.-Y. Kuo, C.-F. Chang, J.-H. Chen, Y.-H. Chu, M. Yamamoto, C.-H. Shen, Y.-L. Chueh, P.-W. Chiu, Y.-C. Chen, J.-C. Yang*(楊展其), and Y.-F. Lin*(林彥甫), "*Integration of Freestanding Hafnium Zirconium Oxide Membranes into Two-dimensional Transistors as a High-κ Ferroelectric Dielectric*", Nat. Electron. **8**, 560 (2025).
- Y.-H. Lin, K.-Y. Tong, S.-P. Chuang, M. Yılmaz, C.-Y. Chiang, and M.-J. Deng*(鄧名傑), "*3.3V Customizable, Recyclable, and Remanufacturable Flexible Symmetric Supercapacitors*", J. Alloy. Compd. **1016**, 179025 (2025).
- Y.-R. Lin, and F.-H. Ko*(柯富祥), "*Cu-doped $In(OH)_3/In_2S_3/In_2O_3$ Nanostructures for Efficient Photocatalytic Hydrogen Evolution from Natural Seawater Under Visible Light*", Surf. Interfaces **72**, 107130 (2025).
- Y.-S. Lin, C.-C. Hung, J.-C. Ho, W.-C. Chen, E. Ercan, Y.-C. Lin*(林彥丞), Y.-C. Chiu*(邱昱誠), and W.-C. Chen*(陳文章), "*Multi-level Nonvolatile Transistor Memory With Optical Rewritability Utilizing Reverse-bias P-N Junction of Oriented Rod-like Organic Molecules*", Adv. Funct. Mater. **35**, 2416306 (2025).
- H.-C. Lo, J.-D. Hu, C.-M. Chou, C.-Y. Chen, J.-M. Lin, C.-W. Chen, C.-L. Wang, W.-T. Chuang, and K.-Y. Wu*(吳冠毅), "*Enhancing Mechanical Properties of Wet-spun PEDOT: PSS Conductive Fibers via Molecular Weight Engineering of PSS*", Eur. Polym. J. **235**, 114085 (2025).
- Y.-H. Shih, G.-L. Wu, P.-H. Chueh, J.-C. Chen, C.-Y. Tsai, T.-Y. Wang, M.-H. Yu, Y.-P. Li, W.-C. Chen, and C.-C. Chueh*(闕居振), "*The Influence of Interlocking Effects in Conjugated Polymers Synthesized by Aldol Polycondensation on Field-effect Transistor Properties and Morphology*", JACS Au **5**, 1382 (2025).
- W.-T. Tseng, P.-Y. Yen, Y.-H. Wang, W.-Y. Huang, W.-T. Chuang, and K.-Y. Wu*(吳冠毅), "*Composition-dependent Structural Modulation in st-PMMA/C_{60} Inclusion Complex Fiber and Its Influence on Vapochromic Response*", ACS Appl. Polym. Mater. **7**, 3863 (2025).
- S. Venkateswarlu, F.-J. Lin*(林芳如), and Y.-T. Tao*(陶雨臺), "*Odd-even Effect in Photoreactivity and Transistor Property of Benzo[b]benzo[4,5]thieno[2,3d]thiophene Tethered with a Diacetylenic Group through a Spacer Chain*", Chem. Mater. **37**, 6678 (2025).
- Y.-C. Weng, C.-C. Kang, T.-W. Chang, Y.-T. Tsai, S. Khan, T.-M. Hung, and C.-C. Shih*(石健忠), "*Design Principles for Enhancing Both Carrier Mobility and Stretchability in Polymer Semiconductors via Lewis Acid Doping*", Adv. Mater. **37**, 2411572 (2025).
- M.-C. Wu*(吳明忠), K.-C. Hsiao, C. Fu, T.-H. Lin, Y.-H. Chang, Y.-C. -C., M.-P. Nieh, W.-F. Su, and M. Li*(李明達), "*Giant, Non-perturbative Tuning of Light-matter Interaction of Embedded Quantum Dots in Semiconducting Matrices*", Adv. Compos. Hybrid Mater. **8**, 281 (2025).
- M.-C. Wu*(吳明忠), Y.-H. Chang, T.-H. Lin, C.-Y. Wu, J.-M. Chang, and Y.-J. Lu*(盧郁仁), "*Enhanced Photothermal Therapy for Tumor Ablation: Structural and Functional Insights into Bi_2Se_3 Nanosheets as Light-to-heat Cconverter*", Discover Nano **20**, 106 (2025).
- P.-J. Yu, P.-Z. Yu, W.-C. Chen, H. Li, B.-H. Lin, C.-C. Kuo, Y.-C. Lin*(林彥丞), R. Borsali*, and W.-C. Chen*(陳文章), "*Regulating the Perovskite Nanocrystal Allocations in Carbohydrate Block Copolymers through Architecture Engineering for Nonvolatile Phototransistor Memory*", Mater. Today Nano **29**, 100563 (2025).
- B.-X. Zhong, L.-T. Chen, C.-Y. Lo, P.-Y. Chang, W.-T. Chuang*(莊偉綜), and C.-L. Wang*(王建隆), "*Designing Extrinsic Porosity in Supramolecular Organic Frameworks: Structural Control with Giant Tetrahedral Molecules*", J. Chin. Chem. Soc. **72**, 1119 (2025).

TLS 13B1 SW60 – Protein Crystallography

- C. Beagbandee, R. Charoenwattanasatien, S. Pengthaisong*, G. Kurisu, and J. R. K. Cairns*, "*The Structure of Thermosynechococcus Elongatus Glycoside Hydrolase Family 116 β-glucosidase Shows the Role of the Noncatalytic N-terminal Domain in Controlling Substrate Specificity*", Int. J. Biol. Macromol. **332**, 148566 (2025).
- C. Chandit, K. Hengphasatporn, P. Donsuy, Y. Shigeta, and K. Wangkanont*, "*Structure and Catalytic Activity of a Dihydrofolate Reductase-like Enzyme from Leptospira Interrogans*", Int. J. Biol. Macromol. **298**, 139931 (2025).
- Y.-C. Chen, C.-H. Huang, Y.-T. Chang, C.-Y. Chen, J.-H. Shiu, C.-H. Cheng, Y.-F. Su, and W.-J. Chuang*(莊偉哲), "*Structural and Functional Differences of Rhodostomin and Echistatin in Integrin Recognition and Biological Implications*", Proteins **93**, 1627 (2025).
- C.-C. Chiang, Y.-J. Lu, J.-W. Liu, S.-W. Lin, C.-C. Chou, C.-H. Lin, I.-W. Chien, and C.-H. Hsu*(徐駿森), "*Structural Insights into 4,5-DOPA Extradiol Dioxygenase from Beta Vulgaris: Unraveling the Key Step in Versatile Betalain Biosynthesis*", J. Agr. Food Chem. **73**, 6785 (2025).
- I.-T. Ko, Y.-T. Yuan, C.-J. Hsieh, H.-T. Hsu, and H.-S. Yin*(殷献生), "*Structural Insights into Substrate Binding, Residue Contributions, and Catalytic Mechanism of Phosphopantetheine Adenylyltransferase from Helicobacter Pylori*", Biosci. Rep. **45**, 19 (2025).
- P. Laohawutthichai, S.-Y. Kim, M. F. Chek, T. Jatuyosporn, A. Tassanakajon, K. Krusong*, and T. Hakoshima*(箱嶋敏雄), "*Structure of the C-terminal of Viral Responsive Protein 15 (VRP15): A Key Protein During White Spot Syndrome Virus (WSSV) Infection*", J. Mol. Biol. **437**, 169329 (2025).
- C.-J. Lin, C.-C. Cho, S.-C. Chen, G.-M. Hsuan, C.-Y. Huang, and C.-H. Hsu*(徐駿森), "*Unveiling the Structural and Biochemical Characteristics of an Acidophilic β-mannanase from Soybean (Glycine Max)*", J. Agr. Food Chem. **73**, 25479 (2025).

- S.-W. Lin, T.-P. Ko, H.-Y. Chiang, C.-G. Wu, M.-F. Hsu, A. H.-J. Wang*(王惠鈞), and C.-H. Lin*(林俊宏), "*Structural Insight into the Catalytic Mechanism of the Bifunctional Enzyme L-fucokinase/GDP-fucose Pyrophosphorylase*", J. Biol. Chem. **301**, 108344 (2025).
- J. M. Lo, C.-C. Kung, T.-J. Rachel, C.-H. Wong*(翁啟惠), and C. Ma*(馬徽), "*Structure-based Mechanism and Specificity of Human Galactosyltransferase β3GalT5*", J. Am. Chem. Soc. **147**, 10875 (2025).
- J.-L. Meng, Z.-X. Dong, Y.-R. Chen, M.-H. Lin, Y.-C. Liu, S. R. Roffler, W.-W. Lin, C.-Y. Chang, S.-C. Tzou, T.-L. Cheng, H.-C. Huang, Z.-Q. Li, Y.-C. Lin, and Y.-C. Su*(蘇昱誠), "*pH-responsive Polyethylene Glycol Engagers for Enhanced Brain Delivery of PEGylated Nanomedicine to Treat Glioblastoma*", ACS Nano **19**, 307 (2025).
- Y.-L. Wang, L.-C. Ye, S.-C. Chang, S.-C. Chen*(陳勝嘉), and C.-H. Hsu*(徐駿森), "*Structural Insight into the Poly(3-hydroxybutyrate) Hydrolysis by Intracellular PHB Depolymerase from Bacillus Thuringiensis*", Int. J. Biol. Macromol. **284**, 137999 (2025).
- C.-S. Yang, M.-Y. Shie, S.-W. Huang, Y.-C. Wang, M.-H. Hou, C.-J. Chen*(陳朝榮), and Yeh Chen*(陳曄), "*Structural Insights into Signaling Promiscuity of the CBASS Anti-phage Defense System from a Radiation-resistant Bacterium*", Int. J. Biol. Macromol. **295**, 139534 (2025).

TLS 13B2 Beamline of Interdisciplinary Energy Researches

- S.-C. Chen, S.-W. Lin, S.-L. Chang, Y.-R. Lu*(盧英睿), and C.-J. Chen*(陳致融), "*Efficient H_2O_2 Electrosynthesis via Strategic Regulation of Sulfur Coordination in Single-atom Catalysts*", Chem. Eng. J. **521**, 166571 (2025).
- Y.-M. Chen, Y.-C. Chen, K.-Y. Tu, Y.-D. Lin, Y.-G. Lin, H.-Y. Lin, S. Bajaj, and J. M. Wu*(吳志明), "*Piezocatalysis-enabled High-efficiency Hydrogen Evolution with Single-atom Platinum on MoS_2 Nanoflowers*", Small **21**, e08162 (2025).
- T. H. Chiang*(江姿萱), S.-R. Xu, Y.-S. Chen, H.-W. Chang, T.-C. Huang, and J.-M. Chen, "*A Nanoparticle Metal Schiff Bases Synthesis by Amine Curing Agents Reacts with Waste PET Plastic to Enhance Alkaline Water Electrolysis*", Electrochim. Acta **524**, 146010 (2025).
- C.-H. Liao, Y.-T. Weng, S.-K. Parthasarathi, H. Chen, S.-J. Chang, G.-Y. Liu, T.-Y. Yu, C.-W. Pao, T.-S. Chan, W.-T. Chuang, C.-C. Wang, R.-J. Jeng, and N.-L. Wu*(吳乃立), "*A Li-ion Permeable Poly(Phenylene Ether-ether-Sulfone) Interphase to Address Interfacial Instability and Structural Degradation of Ni-rich NCM Cathodes in Poly(Ethylene Oxide)-based All-solid-state Li-ion Batteries*", Chem. Eng. J. **523**, 168677 (2025).
- T. X. Nguyen, C.-H. Lee, J.-H. Sun, C.-K. Peng, W.-H. Chu, H. Pourzolfaghar, Y.-R. Lin, M. Ghufron, Y.-Y. Li, Y.-H. Chang, Y.-G. Lin, H.-Y. T. Chen, S.-W. Tseng, C.-Y. Su, and J.-M. Ting*(丁志明), "*Synergistic Modulation of Electronic Structure in High Entropy Perovskite Oxide for Enhanced Bifuntional Oxygen Evolution/Reduction Reactions and Its Mechanistic Insights via In-situ Analyses and Density Functional Theory Calculation*", Chem. Eng. J. **511**, 161731 (2025).
- J. Sun, Y.-A. Lai, J. Sun, Y. Du, B. J. Jolly, H. Sheng, T. Y. Lai, H. M. Chen, C. Costentin, M. Nava*, and C. Liu*, "*Automated Electroanalysis Accelerates the Discovery of Concerted Proton-electron Transfer*", J. Am. Chem. Soc. **147**, 28993 (2025).
- J. Wang, M.-T. Liu, C.-S. Hsu, Y.-C. Chu, Y.-F. Liao, C.-W. Pao, T.-S. Chan, W.-T. Chuang, J.-L. Chen, Y.-C. Shao, H. Ishii, N. Hiraoka, C.-Y. Chiang*(蔣慶有), and H. M. Chen*(陳浩銘), "*Resolving Dynamic Behavior of Electrocatalysts via Advances of Operando X-ray Absorption Spectroscopies: Potential Artifacts and Practical Guidelines*", Adv. Mater. **37**, 2418797 (2025).

TLS 13C1 SW60 – Protein Crystallography

- C.-J. Lin, C.-C. Cho, S.-C. Chen, G.-M. Hsuan, C.-Y. Huang, and C.-H. Hsu*(徐駿森), "*Unveiling the Structural and Biochemical Characteristics of an Acidophilic β-mannanase from Soybean (Glycine Max)*", J. Agr. Food Chem. **73**, 25479 (2025).
- J. M. Lo, C.-C. Kung, T.-J. Rachel, C.-H. Wong*(翁啟惠), and C. Ma*(馬徽), "*Structure-based Mechanism and Specificity of Human Galactosyltransferase β3GalT5*", J. Am. Chem. Soc. **147**, 10875 (2025).
- Y.-L. Wang, L.-C. Ye, S.-C. Chang, S.-C. Chen*(陳勝嘉), and C.-H. Hsu*(徐駿森), "*Structural Insight into the Poly(3-hydroxybutyrate) Hydrolysis by Intracellular PHB Depolymerase from Bacillus Thuringiensis*", Int. J. Biol. Macromol. **284**, 137999 (2025).

TLS 14A1 BM – IR Microscopy

- R. Balasaravanan, C.-H. Kuan, Y.-S. Shih, H.-L. Cheng, D. Ganesan, S.-H. Hong, C.-L. Liu, Y.-R. Zhong, X. Jiang, M.-C. Chen*(陳銘洲), and E. W.-G. Diau*(刁維光), "*Electron 'Push-push-pull' Type Dithienopyrrole-based Self-assembled Monolayers on NiOx for Enhanced Performance of Tin Perovskite Solar Cells*", Chem. Eng. J. **519**, 165231 (2025).
- P.-H. Chen, Y.-H. Chen*(陳燕華), M.-C. Hsieh, Y.-W. Huang, C.-C. Huang, W.-T. Jiang, J.-J. Lee, Y.-C. Lee, and H.-S. Sheu, "*Fault Materials and Creep Characteristics in Mudstone Areas: A Case Study of Chegualin Fault in Southwestern Taiwan*", Eng. Geol. **350**, 108020 (2025).
- T.-P. Gau, J.-H. Wen, I.-W. Lu, P.-Y. Huang, Y.-C. Lee, W.-P. Lee, and H.-C. Lee*(李香君), "*Application of Attenuated Total Reflection-fourier Transform Infrared Spectroscopy in Semi-quantification of Blood Lipids and Characterization of the Metabolic Syndrome*", PLoS One **20**, e0316522 (2025).
- C.-W. Hsu, M.-Y. Shen, Y.-J. Wang, S.-H. Hong, Y. Liu, H.-C. Wu*(吳亘承), W.-C. Chen*(陳文章), and C.-L. Liu*(劉振良), "*Morphology-engineered Spider Silk-carbon Nanotube Composites for High-performance and Sustainable Thermoelectric Energy Harvesting*", Chem. Eng. J. **524**, 169375 (2025).
- C.-Y. Huang, R.-C. Wang, T.-S. Hsu, T.-N. Hung, M.-Y. Shen, C.-H. Chang, and H.-C. Wu*(吳亘承), "*Developing an E. coli-based Cell-free Protein Synthesis System for Artificial Spidroin Production and Characterization*", ACS Synth. Biol. **14**, 1829 (2025).
- R. R. Koli, I.-H. Tsai, Y.-B. Huang, C.-H. Wang, B.-H. Liu, R. Putikam, M. C. Lin, and E. W.-G. Diau*(刁維光), "*Development of Single Crystalline Al-doped ZnS Nanodiscs as Efficient Photocatalysts for H_2 Evolution Reaction*", J. Mater. Chem. A **13**, 34615 (2025).
- C.-H. Liao, M.-Y. Shen, Y.-J. Wang, T.-Y. Yu, R.-J. Jeng, T.-I. Yang, M. B. Dickerson, C.-S. Hung, J. S. Knopp, H.-C. Wu*(吳亘承), and S.-H. Tung*(童世煌), "*Weaving Strength and Conductivity: Spider Silk-modulated Polymer Electrolytes for High-performance All-solid-state Lithium-metal Batteries*", J. Mater. Chem. A **13**, 36072 (2025).
- P. C. Loni, B. Liang*(梁碧清), C.-Y. Chiang, Y.-C. Lee, J. Rathod, C.-H. Ciou, P.-H. Wu, and W.-H. Chen, "*Enhanced Removal of Antimony, Arsenic and Cadmium by Bone Char in Co-contaminated Aqueous Systems: A Lattice Level Mechanistic Understanding*", J. Environ. Chem. Eng. **13**, 117281 (2025).
- ◦ N. A. T. Than, L. C. Hsu, Y.-H. Chen, K. Huangmee, C.-C. Wang, H. Y. Teah, Y.-M. Tzou, Y.-L. Cho*(卓宴琳), and Y.-T. Liu*(劉雨庭), "*Anaerobic Fe(II) Bio-oxidation by Cyanidiophyceae to Enhance As(III) Removal: A Novel and Efficient Biological Material Toward Resilient Remediation*", Chem. Eng. J. **523**, 168303 (2025).
- S.-Y. Tsai, W.-T. Tseng, J.-H. Su, Y.-H. Wang, Y.-W. Chang, C.-H. Wang, U.-S. Jeng, K.-Y. Wu*(吳冠毅), C.-L. Wang*(王建隆), and W.-T. Chuang*(莊偉綜), "*Optimal st-PMMA/C_{60} Helical Inclusion Complexes via Tunable Energy Landscapes for the Application of an Ag SERS-active Substrate*", J. Appl. Crystallogr. **58**, 553 (2025).
- C.-L. Wang*(王建隆), W.-T. Chuang*(莊偉綜), M.-T. Lee, Y.-R. Wang, S.-Y. Chen, H.-J. Huang, S.-Y. Liu, J.-M. Lin, C.-Y. Chen, Y.-C. Lee, and U.-S. Jeng, "*Deactivating Symmetry Breaking of a Soft Frank-Kasper Phase via Water-induced Conformational Ordering of a Shapeshifting Dendritic Amphiphile*", ACS Appl. Mater. Interfaces **17**, 31403 (2025).
- C.-C. Yang, S. Makovetskyi, Y.-C. Yang, I.-C. Hsu, S.-H. Hsieh, Y.-C. Lee, S.-C. Haw, F.-T. Tsai*(蔡富潯), and W.-F. Liaw*(廖文峯), "*Competitive Optimization of Interfacial Water Dissociation and Hydroxyl Reductive Desorption of MoCoNi-based Catalysts for Superior Alkaline Hydrogen Evolution*", Small **21**, 2503278 (2025).
- ◦ M.-C. Yu*(余美靜), X.-D. Huang, C.-W. Kuo, K.-F. Zhang, P.-C. Liang, U.-S. Jeng, P.-Y. Huang, F. W. K. Tam, and Y.-C. Lee*(李耀昌), "*Developing a Label-free Infrared Spectroscopic Analysis with Chemometrics and Computational Enhancement for Assessing Lupus Nephritis Activity*", Biosensors-Basel **15**, 39 (2025).

TLS 15A1 Biopharmaceuticals Protein Crystallography

- C.-C. Chang, H.-J. Li, R. Satange, S.-M. Lin, T.-L. Chen, C.-C. Lin, S. Neidle, and M.-H. Hou*(侯明宏), "*Structural and Functional Insights into Targeting GCCG Sites in the EGFR Promoter by Two DNA Intercalators to Inhibit Breast Cancer Metastasis*", J. Med. Chem. **68**, 6601 (2025).
- ◦ C.-C. Cho, H.-H. Huang, B.-C. Jiang, W.-Z. Yang, Y.-N. Chen, and H. S. Yuan*(袁小玲), "*Histone Modification-driven Structural Remodeling Unleashes DNMT3B in DNA Methylation*", Sci. Adv. **11**, eadu8116 (2025).
- Y.-C. Feng, S. Agrawal, C.-H. Yang, H.-C. Chang, Ling Kuo, W.-C. Yu, Y.-T. Liu*(劉祐岑), and T.-Y. Yu*(余懿顏), "*The Structural and Dynamic Insights into the Ala97Ser Amyloidogenic Mutation in Transthyretin*", Chem.-Asian J. **20**, e202401438 (2025).
- L.-N. Ko, G. Z. Lim, J.-C. Chen, T. Ko, G.-Y. Li, and C.-S. Yan*(楊啟伸), "*Rhodopsin from Haloquadratum Walsbyi is a Light-driven Magnesium Transporter*", Nat. Commun. **16**, 4472 (2025).
- Y.-T. Lai, C.-Y. Peng, H.-T. Liao, P.-Y. Hsiao, C.-K. Hsieh, Y.-R. Luo, S.-C. Huang, Y.-L. Wang, T. Ma, Y.-R. Chen, Y.-M. Kuo, Y.-C. Lin, John Chu, and C.-Y. Chang*(張晉源), "*Biosynthesis of Antituberculosis Antibiotic Capreomycin Involves a Trans-iterative Adenylation Domain within the Nonribosomal Peptide Synthetase Machinery*", Org. Lett. **27**, 9553 (2025).
- K.-J. Liao*(廖冠儒)and Y.-J. Sun*(孫玉珠), "*Using AlphaFold and*

Symmetrical Docking to Predict Protein-protein Interactions for Exploring Potential Crystallization Conditions", Proteins **93**, 1747 (2025).
- S.-W. Lin, T.-P. Ko, H.-Y. Chiang, C.-G. Wu, M.-F. Hsu, A. H.-J. Wang*(王惠鈞), and C.-H. Lin*(林俊宏), "*Structural Insight into the Catalytic Mechanism of the Bifunctional Enzyme L-fucokinase/GDP-fucose Pyrophosphorylase*", J. Biol. Chem. **301**, 108344 (2025).
- J. M. Lo, C.-C. Kung, T.-J. Rachel, C.-H. Wong*(翁啟惠), and C. Ma*(馬徽), "*Structure-based Mechanism and Specificity of Human Galactosyltransferase β3GalT5*", J. Am. Chem. Soc. **147**, 10875 (2025).
- Y.-H. Peng, M.-C. Li, W.-C. Yen, T.-K. Yeh, C.-C. Hsueh, F.-M. Kuo, Y.-L. Lai, Ling Chang, L.-C. Lee, P.-Y. Chen, K.-J. Yen, T.-Y. Chang, H.-Y. Sun, C.-Y. Chang, S.-H. Hsieh, C.-M. Yang, H.-P. Hsieh*(謝興邦), and S.-Y. Wu* (伍素瑩), "*Structure-based Design of Potent and Selective MerTK Inhibitors by Modulating the Conformation of αC Helix*", J. Med. Chem. **68**, 10877 (2025).
- P.-Y. Song, C.-E. Tsai, Y.-C. Chen, Y.-W. Huang, P.-P. Chen, T.-H. Wang, C.-Y. Hu, P.-Y. Chen, C. Ku, K.-C. Hsia, and S.-Y. Ting*(陳詩允), "*An Interbacterial Cysteine Protease Toxin Inhibits Cell Growth by Targeting Type II DNA Topoisomerases GyrB and ParE*", PLoS Biol. **23**, e3003208 (2025).
- C.-H. Tseng, W.-L. Hsieh, W. T. Chiang, N.-J. Hu, and C.-L. Lin*(林佳良), "*Structural Insights into the Interaction of Hir2 and Hpc2 in the Yeast Hir Histone Chaperone Complex*", Structure **33**, 1 (2025).
- Y.-L. Wang, L.-C. Ye, S.-C. Chang, S.-C. Chen*(陳勝嘉), and C.-H. Hsu* (徐駿森), "*Structural Insight into the Poly(3-hydroxybutyrate) Hydrolysis by Intracellular PHB Depolymerase from Bacillus Thuringiensis*", Int. J. Biol. Macromol. **284**, 137999 (2025).

TLS 16A1 BM – Tender X-ray Absorption, Diffraction

- G. Cai, G. Zhang, Y. Li, L. Wang, S. Xie, J. Zhang, Y.-R. Lu, T.-S. Chan, X. Kong, X. Wu, S. Jin*(金松), J. Lu*(路軍嶺), and H. Ji*(季恒星), "*Structural Sensitivity of Atomically Dispersed Catalysts in Electrocatalytic Reactions for Lithium-sulfur Batteries*", Adv. Funct. Mater. **35**, 2501600 (2025).
- H.-W. Chang, T. Yang, C. Yan, P.-H. Chiu, C.-Y. Wu, H.-W. Yen, D. Bhalothia*, K.-W. Wang, P.-C. Chen*(陳柏均), and T.-Y. Chen*(陳燦耀), "*Oxidized Ti Single Atoms and Co_3O_4 with Abundant Oxygen Vacancies Collaborating with Adjacent Pd Sites for an Efficient and Stable Oxygen Reduction Reaction*", Adv. Sci. **12**, 2417789 (2025).
- S. Chen, T. Luo, J. Wang, J. Xiang, X. Li, C. Ma, C.-W. Kao, T.-S. Chan, Y.-N. Liu, and M. Liu*(劉敏), "*Tuning Proton Affinity on Co-N-C Atomic Interface to Disentangle Activity-Selectivity Trade-off in Acidic Oxygen Reduction to H_2O_2*", Angew. Chem. Int. Edit. **64**, e202418713 (2025).
- S.-C. Chen, S.-W. Lin, S.-L. Chang, Y.-R. Lu*(盧英睿), and C.-J. Chen* (陳致融), "*Efficient H_2O_2 Electrosynthesis via Strategic Regulation of Sulfur Coordination in Single-atom Catalysts*", Chem. Eng. J. **521**, 166571 (2025).
- Y. Fan, X. Ye, J. Zhou, D. Lu, C.-Y. Kuo, Y.-C. Huang, T.-S. Chan, C.-T. Chen, Y. Long*(龍有文), J.-Q. Wang*(王建強), Z. Hu*(胡志偉), and L. Zhang* (張林娟), "*Combined In Situ X-ray Spectroscopic and Theoretical Study on Trimetal Synergistic Enhancement of Water Oxidation*", Adv. Energy Mater. **15**, 2404599 (2025).
- Y. Fan, J. Zhao, J. Zhou, W.-H. Huang, J. Zhu, C.-Y. Kuo, S. Zhang, C.-W. Pao, T.-S. Chan, Y. Zhang, S.-Y. Hsu, J.-M. Chen, C.-T. Chen, C. Jin, L. H. Tjeng, J.-Q. Wang*(王建強), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Self-assembled Metal Cluster/Perovskite Catalysts for Efficient Acidic Hydrogen Production with an Ultra-low Overpotential of 62 mV and Over 1500 Hours of Stability at 1 A cm^{-2}*", Energ. Environ. Sci. **18**, 7527 (2025).
- S. Guo, M. A. Tamerd*, C. Li, X. Shi, M. Yang, J. Hou, J. Liu, M. Tang, S.-C. Haw, C.-T. Chen, T.-S. Chan, C.-Y. Kuo, Z. Hu, L. Yang*(楊龍), and J. Ma* (馬吉偉), "*Activating Sodium Intercalation in Cation-deficient Fe_3O_4 Through Mo Substitution*", Small **21**, 2408212 (2025).
- A. G. Hailemariam, M. Qorbani*, T. T. Mamo, R. Putikam, C.-Y. Huang, K. S. Bayikadi, H.-L. Wu*(吳恆良), M.-C. Lin, L.-C. Chen*(林麗瓊), and K.-H. Chen*(陳貴賢), "*Improved Electrochemical Kinetics and Rate Performance of Lithium-ion Batteries by $Li_2FeS_{2-x}F_x$ Cathode Materials*", Commun. Mater. **6**, 143 (2025).
- C.-W. Hsieh, Z.-S. Chiou, C.-P. Lee*(李傳斌), S.-C. Tsai, W.-H. Tseng, Y.-H. Wang, H.-M. Chiu, Q.-R. Sun, and C.-L. Yeh, "*Integration of Fourier and Wavelet Transform for Adsorption Mechanism of Cesium Study Based on X-ray Diffraction and Absorption Spectroscopy*", IEEE Access **13**, 55487 (2025).
- Z.-J. Huang, D. M. Kabtamu, A. M. Demeku, G.-C. Chen, N.-Y. Hsu, H.-H. Ku, Y.-M. Wang, T.-C. Chiang, and C.-H. Wang*(王丞浩), "*Enhanced Electrochemical Performance of Vanadium Redox Flow Batteries Using $Li_4Ti_5O_{12}$/TiO_2 Nanocomposite-modified Graphite Felt Electrodes*", ChemElectroChem **12**, e202400477 (2025).
- H. Li, L. Wang, P. Chen, C. Yuan, P. Zeng, X. Xia, and L. Zhang*(張亮), "*Spatiotemporal Coordination-engineered Core-shell Zeolitic Imidazolate Frameworks Enable Self-adaptive Electrocatalyst Reconstruction and Self-tandem Sulfur Conversion*", ACS Nano **19**, 19464 (2025).
- Y. Li, J. Zhao, S. Zhang, Y. Fan, C.-Y. Kuo, Y.-C. Ku, T.-S. Chan, C.-W. Kao, Y.-C. Huang, C.-T. Chen, S.-C. Haw, C. Jin, H. Zhao, D. Ye*(葉代新), C. Jing*(靜超), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Hexavalent Ru Catalyst with Both Lattice Oxygen and Metal Ion Mechanisms Coactive for Water Oxidation*", J. Am. Chem. Soc. **147**, 26854 (2025).
- S. Liu, X. Ye, Z. Pan, J. Zhang, S. Tang, G. Zhang, M. Pi, Z. Hu, C.-T. Chen, T.-S. Chan, C. Dong, T. Cui, Y. Huang, Z. Chi*(遲振華), Y. Shen*(沈瑤), and Y. Long*(龍有文), "*High-pressure Synthesis of an Oxynitride Perovskite $CeNbO_2N$ with Nb^{4+} Charge State*", Chinese Phys. B **34**, 066202 (2025).
- Z. Mou, Y. Mu, L. Liu, D. Cao, S. Chen, W. Yan, H. Zhou, T.-S. Chan, L.-Y. Chang, J. Guo*(郭俊杰), and X. Fan*(范修軍), "*Non-metal Silicon Single-atom Catalysts with Unsymmetrically Tetradentate O_3N_1 Moiety Enabling Ampere-level H_2O_2 Electrosynthesis*", Small **21**, 2504777 (2025).
- Y. Nikodimos*, B. W. Taklu, C.-Y. Chang, K. N. Shitaw, T. M. Hagos, Z. B. Muche, S. K. Chaudhary, G. G. Serbessa, T.-I. Yeh, S. K. Merso, S. A. Ahmed, J.-M. Ke, E. A. Moges, S.-C. Yang, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Unveiling the Chemical Stability and Solvent Compatibility of Halide Solid-state Electrolytes: Insights from Isothermal Calorimetric Titration and Synchrotron Spectroscopy*", Chem. Mater. **37**, 7622 (2025).
- S. Shen, C. Yuan, Y. Xu*(胥燕), Y. Xie, L. Wang, T. Yan, S. Chen, L. Wang, T. Liu*(劉鐵鋒), and L. Zhang*(張亮), "*Improving ZnS Oxidation Kinetics Through Nucleophilic Regulation for High-performance Zinc-sulfur Batteries*", Adv. Funct. Mater. **35**, 2420258 (2025).
- F.-Z. Tian, W.-J. Chang, P.-J. Liang, Y.-A. Lai, C.-S. Hsu, S.-C. Lin, Y.-H. Chen, Y.-C. Chu, S.-W. Huang*(黃詩雯), H.-L. Chen*(陳輝龍), and H. M. Chen*(陳浩銘), "*Charge Redistribution Dynamics in Chalcogenide-stabilized Cuprous Electrocatalysts Unleash Ampere-scale Partial Current Toward Formate Production*", Nat. Commun. **16**, 9426 (2025).
- J. Wang, K. Liu, W. Liao, Y. Kang, H. Xiao, Y. Chen, Q. Wang, T. Luo, J. Chen, H. Li, T.-S. Chan, S. Chen, E. Pensa, L. Chai, F. Liu, L. Jiang, C. Liu, J. Fu, E. Cortés, and M. Liu*(劉敏), "*Metal Vacancies in Semiconductor Oxides Enhance Hole Mobility for Efficient Photoelectrochemical Water Splitting*", Nat. Catal. **8**, 229 (2025).
- Q. Wang, Y. Liu, Y. Tan, Y. Xiao, L. Liao, J. Fu, S. Zhao, H. Li, C.-W. Kao, T.-S. Chan, H. Zhou, F. Li, L. Chai, Z. Lin, K. Liu*(劉康), and M. Liu*(劉敏), "*Enhanced Acidic CO_2-to-C_{2+} Reduction via Ionic Liquid Layer Modification*", Small **21**, 2412293 (2025).
- Q. Wang, T. Luo, X. Cao, Y. Gong, Y. Liu, Y. Xiao, H. Li, F. Gröbmeyer, Y.-R. Lu, T.-S. Chan, C. Ma, K. Liu, J. Fu, S. Zhang, C. Liu, Z. Lin, L. Chai, E. Cortes*, and M. Liu*(劉敏), "*Lanthanide Single-atom Catalysts for Efficient CO_2-to-CO Electroreduction*", Nat. Commun. **16**, 2985 (2025).
- Q. Wang, Y. Xiao, F. Li, Y. Tan, Y. Liu, F. Gröbmeyer, K. Liu, J. Fu, H. Li, C.-W. Kao, T.-S. Chan, R.-K. Miao, L. Chai, E. Cortés*, and M. Liu*(劉敏), "*Engineering Interlayer Electric Fields to Enhance K^+ Insertion for Efficient Acidic CO_2 Reduction*", ACS Catalysis **15**, 15920 (2025).
- C.-C. Yang, S. Makovetskyi, Y.-C. Yang, I.-C. Hsu, S.-H. Hsieh, Y.-C. Lee, S.-C. Haw, F.-T. Tsai*(蔡富潯), and W.-F. Liaw*(廖文峯), "*Competitive Optimization of Interfacial Water Dissociation and Hydroxyl Reductive Desorption of MoCoNi-based Catalysts for Superior Alkaline Hydrogen Evolution*", Small **21**, 2503278 (2025).
- F.-Y. Yen, S.-I. Chang, Y.-C. Ting, C.-W. Chang, K.-A. Lee, and S.-Y. Lu* (呂世源), "*In-situ Selective Oxidation Created Cr_2O_3 Assisting CrMnFeCoNi for Ultrahigh Power Density Zinc-air Batteries*", Energy Mater. **5**, 500114 (2025).
- X. Zhou, C.-Y. Chang, D. Yu, K. Zhang, Z. Li, S.-K. Jiang, Y. Zhu*(朱一舟), Y. Xia*(夏永姚), B. J. Hwang*(黃炳照), and Y. Wang*(王永剛), "*Li_2ZrF_6 Protective Layer Enabled High-voltage $LiCoO_2$ Positive Electrode in Sulfide All-solid-state Batteries*", Nat. Commun. **16**, 112 (2025).

TLS 17A1 W200 – X-ray Powder Diffraction

- H. Chen, H.-H. Wu, and C.-C. Li*(李嘉甄), "*Solid Electrolyte-driven Suppression of H2-H3 Phase Transition in Ni-rich Cathodes for Stable High-voltage Cycling*", Curr. Opin. Solid State Mat. Sci. **39**, 101245 (2025).
- N. C.-R. Chen, P.-C. Han, L.-H. Yeh*(葉禮賢), Y.-H. Peng, C.-A. Lung, Y. Yamauchi, and K. C.-W. Wu*(吳嘉文), "*A Full Sub-2 nm and Acid-resistant MOF-COF Ionic Diode Membrane for Efficient Ionic Gradient Power Generation*", Chem. Eng. J. **525**, 170303 (2025).
- P.-H. Chen, Y.-H. Chen*(陳燕華), M.-C. Hsieh, Y.-W. Huang, C.-C. Huang, W.-T. Jiang, J.-J. Lee, Y.-C. Lee, and H.-S. Sheu, "*Fault Materials and Creep Characteristics in Mudstone Areas: A Case Study of Chegualin Fault in Southwestern Taiwan*", Eng. Geol. **350**, 108020 (2025).
- Y.-Y. Chen, Y.-C. Chen, H.-C. Tsai, and Y.-Y. Lai*(賴育英), "*Synthesis, Properties, and Photocatalytic Hydrogen Evolution of Isoindigo-based Conjugated Molecules*", J. Mater. Chem. A **13**, 41242 (2025).

- S. L. Cheng, H. W. Shiu, Y.-L. Lai, K.-Y. Chiu, J.-H. Wang*(王禎翰), Y.-Y. Chin*(秦伊瑩), Y.-H. Hsieh, L.-C. Yu, W.-T. Chen, T.-H. Chuang, D.-H. Wei, and Y.-J. Hsu*(許瑤真), "*Magnetic Exchange Interaction at the Heterostructure of Tris(8-hydroxyquinoline)Iron with Different Coordination Symmetry and Valence States on Ni Ferromagnetic Surface*", Appl. Surf. Sci. **710**, 163903 (2025).
- M. He, C. Wang, H. Yang, D.-Y. Wu, J.-J. Lee, X. Huang, H. Shen, F. Wang* (王芳衛), M. Avdeev*, and W. H. Kan*(簡宏希), "*High-entropy V-based Null Matrix Alloys-Short/Long-range Structural Features, Chemical Stabilities, and Mechanical Properties*", ACS Appl. Mater. Interfaces **17**, 24220 (2025).
- Y.-H. Lee*(李宜桓), C.-L. Wu, C.-W. Lai, and J.-X. Huang, "*Thin, Lightweight, and Highly Efficient Electromagnetic Interference Shielding Nanocomposites Composed of a π-conjugated Block Copolymer Nanowire/Multiwalled Carbon Nanotube Bicontinuous Interpenetrating Network*", ACS Omega **10**, 14296 (2025).
- J.i Li, X. Yu, W.-H. Huang, Q. Zhang, K. Wei, X. Zhou, Y. Zhu, X. Zhong, M.-H. Yeh, N. Alonso-Vante, and J. Ma*(馬吉偉), "*Multi-step Screening-guided Core-shell RuO_2@TaO_x Nanorods Electrocatalyst for Acidic Oxygen Evolution Reaction*", Angew. Chem. Int. Edit. **64**, e202511750 (2025).
- T.-L. Liu and Y.-Y. Lai*(賴育英), "*Investigating the Effect of Incorporating Dimethylaminopropyl Side Chains into a Naphthalenediimide-based Conjugated Polymer*", Adv. Electron. Mater. **11**, 2400610 (2025).
- Y.-C. Liu, K.-H. Lin, S.-J. Chiu, J.-J. Lee, Y.-G. Lin, and S.-K. Lin*(林士剛), "*Critical Lattice Strain for Electromigration-Revisiting the Blech Critical Product*", Mater. Charact. **228**, 115384 (2025).
- X. Shi, W.-H. Huang, J. Rong, M. Xie, Q. Wa, P. Zhang, H. Wei, H. Zhou, M.-H. Yeh, C.-W. Pao, J. Wang, Z. Hu, X. Yu*(于曉華), J. Ma*(馬吉偉), and H. Cheng*(程洪飛), "*Revealing and Modulating Catalyst Reconstruction for Highly Efficient Electrosynthesis of Ammonia*", Nat. Commun. **16**, 6161 (2025).
- S. Thakur, K. T. Arul, S. S. Kushvaha, R. C. Meena, C.-L. Dong, S. K. Muthusamy, and A. Kandasami*, "*Synthesis and Characterization of Tungsten Diselenide Thin Films by the Two-step Method*", Appl. Phys. A-Mater. **131**, 198 (2025).
- S. Venkateswarlu, F.-J. Lin*(林芳如), and Y.-T. Tao*(陶雨臺), "*Odd-even Effect in Photoreactivity and Transistor Property of Benzo[b]benzo[4,5] thieno[2,3d]thiophene Tethered with a Diacetylenic Group through a Spacer Chain*", Chem. Mater. **37**, 6678 (2025).
- C.-W. Wang, C.-S. Horng, and A. P. Roberts*, "*Ferrimagnetic Structure of 3C Pyrrhotite (Fe_7S_8) From Neutron Diffraction*", Geochem. Geophy. Geosy. **26**, e2025GC012470 (2025).
- J.-S. Wang, G.-B. Liao, Zhen Chong, C.-H. Ho, P.-C. Huang, J.-L. Huang, C.-C. Chang, Dipti R. Sahu*, and Y.-M. Shen*(沈祐民), "*Carbon-coated Nonstoichiometric TiO_x for Application of Li-ion Battery Anodes in Fast Charging-in Situ XRD Study*", J. Electroanal. Chem. **988**, 119127 (2025).
- H.-C. Yang, G.-L. Zeng, S.-Y. Chien, S.-A. Hua, Y. Onohara, M. Cigl, A. Bubnov, J.-J. Lee, D. Pociecha, K. A. Bogdanowicz, A. Iwan, P. Vankatova, V. Hamplova, K. Uchida, Y. Kitagawa, H. Yoshida, and H.-H. Chen*(陳秀慧), "*Photo-active Dithienylcyclopentene-derived Room Temperature Nematics*", J. Mater. Chem. C **13**, 7484 (2025).

TLS 17B1 W200 – X-ray Scattering

- A. K. Anbalagan*, W.-K. Chan, M.-H. Wu, F.-C. Hu, H.-H. Chiu, A. Sabbah, M. Chaudhary, S. Gupta, K.-W. Chuang, A. C. Gandhi, C.-Y. Chiang, H.-M. Tsai, S.-C. Haw, K. V. Savunthari, H.-J. Lin, L.-C. Chen, K.-H. Chen, N.-H. Tai, Y.-L. Chueh, S. Yun Wu, H.-Y. T. Chen*(陳馨怡), A. L. Walter*, and C.-H. Lee* (李志浩), "*Revealing Robust Room Temperature Ferromagnetism in Gd-doped Few-layered MoS_2 Thin Films*", Adv. Sci. **12**, e10366 (2025).
- S. Bajaj, S.-J. Chiu, J. W. Chen, P. A. Sino, C.-W. Yang, C.-T. Chen, I.-S. Hwang, Y.-G. Lin, Y. H. Chu, Y.-L. Chueh, and J. M. Wu*(吳志明), "*Quantitative Study of Reversible Nonvolatile VO_2 Thin Films Through Plasma Driven Phase Engineering Process*", Small **21**, 2408656 (2025).
- Y.-W. Chang, Y.-C. Liu, S.-W. Huang, J.-Y. Sun, S.-Z. Ho, W.-Y. Tzeng, C.-C. Chiu, Y.-C. Ku, P. Kaur, T. A. Butcher, C. Piamonteze, U. Staub, Y.-C. Chen, C.-F. Chang, C.-Y. Kuo, Y.-H. Chu, A. Kleibert, C.-W. Luo, and J.-C. Yang* (楊展其), "*Correlated Magnetic and Electrical Phenomena in Epitaxially Weaved Manganite Lateral Homostructures*", Small **21**, 2411424 (2025).
- K.-Y. Hsiao, Y.-D. Lin, Y.-R. Lin, C.-W. Chin, C.-H. Lin, R.-H. Cyu, Y.-G. Lin, Y.-L. Chueh, and M.-Y. Lu*(呂明諺), "*Atomic-scale Visualization of Single Atom Formation in Metal-organic Frameworks*", J. Mater. Chem. A **13**, 21077 (2025).
- W.-Z. Hsieh*(謝宛蓁), P.-T. Lee, C.-Y. Lee, Y.-H. Huang, C.-Y. Chiang, and C.-E. Ho*(何政恩), "*In-situ Synchrotron X-ray Study on Microstructure and Stress Evolutions of Electroplated Copper Upon Self-annealing*", J. Taiwan Inst. Chem. Eng. **174**, 106194 (2025).
- Y.-C. Hsu, W.-C. Shih, Y.-C. Shen, L. Lee, C.-T. Chen, T.-Y. Yang, Y.-J. Yu, C.-Y. Chiang, S.-J. Chiu, and Y.-L. Chueh*(闕郁倫), "*Controllable CVD Growth of Monolayered WS_2 From Triangular Flakes toward Wafer-scale Thin Film by Precise Design of Growth Environment*", Adv. Mater. Technol. **10**, e00292 (2025).
- Y.-C. Huang, L.-C. He, K.-Y. Yeh, K.-B. Lin, H.-T. Liu, S.-J. Chiu, Y.-G. Lin, Y.-W. Tsai, J.-M. Lin, S.-H. Chang, T.-M. Wu, K.-K. Hsien, S.-Y. Wang, C.-H. Chien, C.-L. Lin, S.-J. Chang*(張書睿), E. Y. Chang*(張翼), and C. Hu* (胡正明), "*Large-period van der Waals Epitaxy of Au on MoS_2 at Room Temperature: Moire-engineered Interfaces for Nanoelectronics*", ACS Appl. Nano Mater. **8**, 18208 (2025).
- Y.-Q. Huang, C.-T. Chen, W.-H. Chen, H.-Y. Sung, K. M. M. D. K. Kimbulapitiya, T.-W. Kuo, C.-C. Wang, C.-Y. Chiang, Y.-C. Hsu, Y.-R. Peng, H.-C. Kuo, W.-W. Wu, Y.-H. Chu*(朱英豪), and Y.-L. Chueh*(闕郁倫), "*Self-assembled $NiSe_2$-$SnSe_2$ Heterostructures From NiO-SnO_2 Films by Plasma-assisted Selenization Process With Efficient Performance of Bifunctional Devices*", Adv. Mater. Technol. **10**, e00707 (2025).
- T. B. T. Huynh, Q. T. Tran, N. Q. Diep*, H.-J. Wang, C.-Y. Lin, U. R. Nallasani, W.-C. Chou*(周武清), T. T. Vu, and V.-Q. Le, "*Alloying-induced Crystal-phase Transition in $In_xGa_ySe_z$ Alloys Grown on C-sapphire Substrates by Molecular Beam Epitaxy: Implication for Next-generation Optoelectronics*", Cryst. Growth Des. **25**, 4159 (2025).
- Y.-R. Lin, and F.-H. Ko*(柯富祥), "*Cu-doped $In(OH)_3$/In_2S_3/In_2O_3 Nanostructures for Efficient Photocatalytic Hydrogen Evolution from Natural Seawater Under Visible Light*", Surf. Interfaces **72**, 107130 (2025).
- Y.-C. Liu, K.-H. Lin, S.-J. Chiu, J.-J. Lee, Y.-G. Lin, and S.-K. Lin*(林士剛), "*Critical Lattice Strain for Electromigration-Revisiting the Blech Critical Product*", Mater. Charact. **228**, 115384 (2025).
- A. Motla, K. Dev, T. A. Kumaravelu, C.-L. Dong, C.-L. Chen, A. Kandasami, and S. Annapoorni*, "*Exploring Optical and Magnetic Characteristics of Ag and FePt Multilayer Systems for Utilization in Surface-enhanced Raman Spectroscopy (SERS) Applications*", Integr. Ferroelectr. **241**, 480 (2025).
- U. R. Nallasani, N. Q. Diep, C.-Y. Lin, T. B. T. Huynh, Q. T. Tran, H.-J. Wang, W.-C. Chou*(周武清), C.-H. Chia, B.-H. Lin, and S. Saurabh, "*Monolithic Integration of 2D GaSe/3D β-Ga_2O_3 Mixed-dimensional Heterostructures on c-sapphire Substrates by Molecular Beam Epitaxy*", ACS Appl. Electron. Mater. **7**, 7827 (2025).
- S. Saurabh, U. R. Nallasani, T.-C. Huang, C.-Y. Lin, Y.-C. Li, Y.-H. Wu, C.-Y. Lee, B.-Y. Chen, G.-C. Yin, M.-T. Tang, W.-C. Chou*(周武清), and B.-H. Lin*(林碧軒), "*Probing the Peculiar Emission Behaviors of c-Sapphire Wafer and β-Ga_2O_3/c-Sapphire via Hard X-ray Nanoprobe*", Opt. Mater. **163**, 116975 (2025).
- C.-Y. Teng, C.-W. Hsu, C.-H. Chang, J.-L. Yang, B.-H. Lin, M.-T. Tang, and Y.-C. Tseng*(曾院介), "*Oxygen Migration Impact on Ferroelectric Evolution in $Hf_{0.5}Zr_{0.5}O_2$ Devices*", Appl. Phys. Lett. **126**, 193502 (2025).

TLS 17C1 W200 – EXAFS

- D. D. Alemayehu, M.-C. Tsai*(蔡孟哲), M.-H. Tsai, C.-C. Yang, C.-C. Chang, C.-Y. Chang, E. A. Moges, K. Lakshmanan, Y. Nikodimos, W.-N. Su*(蘇威年), C.-H. Wang*(王嘉興), and B. J. Hwang*(黃炳照), "*Heterogeneous Interfaces of Ni_3Se_4 Nanoclusters Decorated on a Ni_3N Surface Enhance Efficient and Durable Hydrogen Evolution Reactions in Alkaline Electrolyte*", J. Am. Chem. Soc. **147**, 16047 (2025).
- L. Alzate-Vargas*, L. J. Falling, S. Laha, B. Lotsch, J.-W. Chiou, T.-S. Chan, W.-F. Pong, C.-H. Chuang, J. J. V. Velez, and T. E. Jones*, "*Electron Deficient Oxygen Species in Highly OER Active Iridium Anodes Characterized by X-ray Absorption and Emission Spectroscopy*", Phys. Chem. Chem. Phys. **27**, 9252 (2025).
- F. T. Angerasa, E. A. Moges, C.-Y. Chang, K. Lakshmanan, T. A. Dessie, W.-H. Huang, H. G. Edao, W. B. Dilebo, C. B. Guta, C.-C. Chang, W.-S. Liao, J. Shen, N. G. Habtu*, M.-C. Tsai*(蔡孟哲), W.-N. Su*(蘇威年), and B. J. Hwang* (黃炳照), "*Selective Electrochemical Reduction of CO_2 to Ethanol on a Heteroatom-coordinated Dual-atom Catalyst of Fe/Cu-NC*", Chem. Mater. **37**, 2474 (2025).
- M. E. Ashebir, P. Sabhapathy, O. Nasr, V. Modak, O. Moradlou, A. Sabbah, C.-Y. Huang, S. Nachimuthu, J.-C. Jiang, Y.-L. Hu, C.-H. Hung, L.-C. Chen* (林麗瓊), and K.-H. Chen*(陳貴賢), "*Electronic Structure Engineering of Nickel Single-atom Catalyst by Phosphorous for Efficient Electrocatalytic CO_2 Reduction Reaction in a Proton-rich Microenvironment*", Chem. Eng. J. **509**, 161319 (2025).
- S. Aulia, L.-Y. Chang, H.-H. Su, M. Rinawati, P.-C. Shi, M.-H. Lin, W.-H. Huang, H. Setyawan, B. J. Hwang, and M.-H. Yeh*(葉旻鑫), "*Core-shell-architected Active Sites from a Prussian Blue Analogue Enable Bifunctional Oxygen Electrocatalysis for High-performance Rechargeable Zinc-air Batteries*", ACS Appl. Energy Mater. **8**, 7283 (2025).
- D. Bhalothia, C. Yan, Y. Wu, J.-C. Kao, Y.-C. Lo, H. Li, N. Hiraoka, H. Ishii, Y.-F. Liao, S. Dai*(戴升), C.-H. Wang, A. Hu, J.-P. Chou, P.-C. Chen*(陳柏均),

and T.-Y. Chen*(陳燦耀), "*Local Collaboration Between Oxygen Vacancy, Palladium and Platinum Trimer Triggers Exceptional Performance in the Alkaline Fuel Cell*", Chem. Eng. J. **522**, 167605 (2025).

- H. N. Catherine, D. Roy, T.-Y. Chen, W.-H. Huang, and R.-A. Doong*(董瑞安), "*Engineered Nickel Single-atom Catalysts on 2H-MoS_2 for Enhanced Photoelectrocatalytic Hydrogen Production from Water Splitting under Neutral Conditions*", Chem. Eng. J. **525**, 170512 (2025).
- C.-W. Chang, Y.-C. Ting, F.-Y. Yen, G.-R. Li, K.-H. Lin*(林昆翰), and S.-Y. Lu*(呂世源), "*High Performance Anion Exchange Membrane Water Electrolysis Driven by Atomic Scale Synergy of Non-precious High Entropy Catalysts*", Energy Mater. **5**, 500117 (2025).
- H.-W. Chang, T. Yang, C. Yan, P.-H. Chiu, C.-Y. Wu, H.-W. Yen, D. Bhalothia*, K.-W. Wang, P.-C. Chen*(陳柏均), and T.-Y. Chen*(陳燦耀), "*Oxidized Ti Single Atoms and Co_3O_4 with Abundant Oxygen Vacancies Collaborating with Adjacent Pd Sites for an Efficient and Stable Oxygen Reduction Reaction*", Adv. Sci. **12**, 2417789 (2025).
- K.-P. Chang, Z. X. Law, C.-B. Du, C.-W. Pao, T.-Y. Chen, and D.-H. Tsai*(蔡德豪), "*Methane-steam Reforming for Low-carbon Hydrogen Production Using Ni-Pd Bimetallic Nanoparticle Cluster*", Fuel **399**, 135683 (2025).
- H. Chen, H.-W. Liu, Y.-C. Lu, P.-J. Yu, C.-H. Liao, C.-C. Wang, T.-S. Chan, H.-S. Sheu, P.-Y. Chang, J.-L. Chen, S.-C. Haw, G.-C. Yin, Y.-F. Song, C.-W. Pao, and N.-L. Wu*(吳乃立), "*Realizing Practical Use of $LiNiO_2$ Cathode in Halide-based All-solid-state Lithium Metal Batteries*", Chem. Eng. J. **519**, 165314 (2025).
- J.-H. Chen, Y.-C. Chu, T. Lin, C.-H. Tso, G.-B. Wang, C.-S. Hsu, H. M. Chen, and H.-C. Chen*(陳劾謙), "*Potential-driven Sulfate Coordinated Active Configuration for Electrochemical C-H Bond Activation*", Catal. Sci. Technol. **15**, 1972 (2025).
- Z. Chen, T.-C. Yang, C.-M. Yang*(楊家銘), C. Bao, Z. Jiang, S. Deng*(鄧世清), and N.-C. Lai*(賴念筑), "*Symmetry Distortion Engineering Single-atom Catalysts: Exceptional ORR Activity and Ultra-stable Zn-air Batteries*", Chem. Eng. J. **516**, 164156 (2025).
- Y. Cui, Y. Liu, J. Li, H. Ma, T. Pan, H. Wei, X. Shi, X. Zhou, P. Zhang, W. Niu, S. Sun, M. Yang, W.-H. Huang*(黃偉翔), J. Ma, and H. Cheng*(程洪飛), "*Synthesis of MnM-NC (M=Ga, In, Sn) Dual-singleatom Catalysts for Efficient Electrocatalytic Oxygen Reduction*", J. Mater. Chem. A **13**, 34447 (2025).
- A. M. Demeku, C.-H. Guo, D. M. Kabtamu, Z.-J. Huang, G.-C. Chen, A. W. Bayeh, and C.-H. Wang*(王丞浩), "*Enhanced Electrochemical Performance of Copper-doped Cobalt Oxide Nanowire-modified Graphite Felt as Positive Electrode Material for Vanadium Redox Flow Batteries*", Chem. Eng. J. **505**, 159170 (2025).
- F. Dou, Y. Chang, Y. Zhang, Q. Li, T.-Y. Chen, Y. Yan, Y. Sun, X. Guo, C. Yin, H. Zhou, H.-Y. Chen, and H. Pang*(龐歡), "*Improving Electron and Ion Transport in Nano-Si Anodes through Integration with Conductive Nano-metal-organic Frameworks*", Nano Lett. **25**, 8915 (2025).
- W. Duan, Y. Chen, Y. Zhu, L. Tian, W. Zheng, H. Fu, J.-L. Chen, Y.-J. Lin, J.-C. Ho, Y. Lei, and C. Feng*(馮春華), "*Synergistic Effects of Co Single Atoms and Co Nanoparticles for Electrocatalytic Nitrate-to-ammonium Conversion in Strongly Acidic Wastewater*", Appl. Catal. B-Environ. Energy **363**, 124812 (2025).
- S. Ghosh, C.-W. Li, C.-E. Hsu, Y.-H. Liang, W.-X. Lin, K.-H. Chen, H.-T. Wang, C.-H. Du, J.-W. Chiou*(邱昭文), H.-M. Tsai, J.-L. Chen, C.-W. Pao, C.-M. Cheng, C.-N. Kuo, C.-S. Lue, S. C. Ray, H.-C. Hsueh*(薛宏中), and W.-F. Pong*(彭維鋒), "*Structural Instability and Charge Transfer Mediated Transition in $Pr_3Co_4Sn_{13}$: A Synchrotron Radiation Based Scattering and Spectroscopic Study*", Phys. Rev. B **111**, 165119 (2025).
- S. Guo, M. A. Tamerd, J. Li, J. Wu, X. Shi, C.-W. Pao, Z. Hu, and J. Ma*(馬吉偉), "*Fluorine Doping Induced Accelerated Li^+ Kinetics in Conversion-type Fe_3O_4 Anode*", J. Power Sources **656**, 238115 (2025).
- Y.-T. Guo, M. Rinawati, L.-Y. Chang*(張玲毓), C. Li, C.-J. Ho, P.-C. Shi, K.-J. Chen, W.-H. Huang, H. Mizuguchi, and M.-H. Yeh*(葉旻鑫), "*Fine-tuning the Ni/Co Ratio to Elucidate the Coordination Structure-activity Relationship of MOF-derived Bimetallic Layered Double Hydroxides for Highly Sensitive Enzyme-free Lactate Biosensors*", Nanoscale **17**, 20207 (2025).
- C.-W. Hsieh, Z.-S. Chiou, C.-P. Lee*(李傳斌), S.-C. Tsai, W.-H. Tseng, Y.-H. Wang, H.-M. Chiu, Q.-R. Sun, and C.-L. Yeh, "*Integration of Fourier and Wavelet Transform for Adsorption Mechanism of Cesium Study Based on X-ray Diffraction and Absorption Spectroscopy*", IEEE Access **13**, 55487 (2025).
- G.-L. Huang, K.-Y. Ting, N. Narayanam, D.-R. Wu, T.-E. Hsieh, K.-C. Tsai, D.-W. Yang, Q.-X. Tang, B.-K. Su, Y.-T. Kang, S.-J. Huang, C.-H. Chen, Y.-P. Chang, L.-S. Yang, Y.-C. Chao, E. Y.-T. Li*(李祐慈), and Y.-H. Liu*(劉沂欣), "*Unexpected Magnetic Moments in Manganese-doped $(CdSe)_{13}$ Nanoclusters: Role of Ligands*", Angew. Chem. Int. Edit. **64**, e202420257 (2025).
- H.-Y. Huang, T.-T. Lin, T. A. Kumaravelu*, P.-C. Wang, D.-H. Wei, T. T. T. Nga, C.-H. Du, P.-H. Yeh, W.-C. Chou, C.-L. Chen, K.-W. Chang*(張剛瑋), and C.-L. Dong*(董崇禮), "*Proton Irradiation-induced Modifications in Electrochromic WO_3-Ta_2O_5 Thin Films: From Electronic Structure to Space Survivability*", J. Electron. Mater. **54**, 1007 (2025).
- W. Huang, H. Xu, Y. Deng, S.-W. Lin, H. N. Pham, R. Zhang, D. Jiang, Z. Zhang, A. DeLaRiva, S. Feng, Y. Li, X. Zhang, A. K. Datye, C.-J. Chen*(陳致融), and Y. Wang*, "*Single-atom Zr Promoter Boosts Oxygen Activation on Ceria-supported Pt Catalysts*", Nat. Commun. **16**, 7274 (2025).
- Y. Jiang, T.-H. Huang, K.-Y. Chiu, S.-W. Lee, T.-Y. Chen, Y. Jia, J.-H. Wang*(王禎翰), K.-W. Wang*(王冠文), and S. Dai*(戴升), "*Surface SnO_2 Decoration: An economical and Efficient Alternative to Pt Shells in Pt-Co Catalysts for Enhanced Oxygen Reduction Reaction*", Chem. Eng. J. **511**, 161971 (2025).
- J.-W. Kang, H.-C. Cheng, H.-J. Chen, S.-C. Huang, C.-H. Lee, C.-L. Kuo, S.-Y. Yu, H.-L. Wu, C.-C. Lin, C.-H. Kuo, H.-H. Chang, C.-W. Hu, S.-C. Haw*(何樹智), H.-Y. T. Chen*(陳馨怡), and H.-Y. Chen*(陳翰儀), "*P_2-$Na_{0.61}Ca_{0.03}[Mg_{2/9}Cu_{1/9}Mn_{2/3}]O_2$ as a High-energy Oxygen Redox Cathode for Na-ion Batteries: Investigation of Cu Substitution and Ca Doping to Enhance Cycling Stability*", Adv. Funct. Mater. **35**, 2504642 (2025).
- N. Karuppusamy, S. Manavalan, S. M. Chen*, B.-S. Lou*(駱碧秀), S. M. Jung, T. T. T. Nga, P. Mannu, C. L. Dong, Y. Li, C.-M. Wang*(王志銘), Y.-F. Duann*(段葉芳), C.-L. Chen, and J.-W. Lee, "*Zerovalent Fe Atom-enriched Fe_3C@C Electrocatalysts for Selective Heavy Metals Sensing*", ACS Appl. Nano Mater. **8**, 18018 (2025).
- J. Ke, Y. Ji*(紀玉金), D. Liu, J. Chen, Y. Wang, Y. Li, Z. Hu, W.-H. Huang, Q. Shao*(邵琪), and J. Lu*(路建美), "*Optimizing Acidic Oxygen Evolution with Manganese-doped Ruthenium Dioxide Assembly*", ACS Appl. Mater. Interfaces **17**, 13 (2025).
- J. Ke, W. Zhu, Y. Ji*(紀玉金), J. Chen, C. Li, Y. Wang, Q. Wang, W.-H. Huang, Z. Hu, Y. Li, Q. Shao*(邵琪), and J. Lu*(路建美), "*Optimizing Acidic Oxygen Evolution Reaction via Modulation Doping in Van der Waals Layered Iridium Oxide*", Angew. Chem. Int. Edit. **64**, e202422740 (2025).
- T. A. Kumaravelu*, T. T. T. Nga, R. R. J, G. J, K. M, W.-C. Chou, J.-L. Chen, C.-L. Chen, B.-H. Lin, C.-H. Du, P.-H. Yeh, A. Kandasami, J.-H. Hsu, C.-C. Wang, and C.-L. Dong*(董崇禮), "*Bifunctional NiCo-CuO Nanostructures: A Promising Catalyst for Energy Conversion and Storage*", Small Methods **9**, 2401463 (2025).
- T. A. Kumaravelu, J.-L. Chen, C.-L. Chen, S.-Y. Chen, D.-H. Wei, S.-H. Chen, T. T. T. Nga, W.-C. Chou, and C.-L. Dong*(董崇禮), "*Electronic Structural Modulation for CO-CO_2 Conversion of Copper-modified Nanoceria Studied by In Situ X-ray Absorption Spectroscopy*", Inorg. Chem. **64**, 5375 (2025).
- T. A. Kumaravelu*, T. T. T. Nga, Y.-C. Shao, H. Ishii, J.-L. Chen, C.-L. Chen, C.-W. Pao, Y.-C. Huang, C.-H. Du, P.-H. Yeh, Y.-P. Chen, A. Kandasami, C.-H. Chen, W.-C. Chou, and C.-L. Dong*(董崇禮), "*Structural Symmetry and Regular Octahedral Atomic Coordination in Nanostructured $NiMoO_3$ for Supercapacitor Electrode Applications*", J. Power Sources **658**, 238245 (2025).
- T. A. Kumaravelu, X.-T. Yu, H.-T. Wang, J. Wang, S. Y. H. Liou, L. C. Kao, W.-T. Yang, C.-J. Yang, Y.-R. Lu, C.-L. Chen, B.-H. Lin, D.-H. Wei*(魏大華), and C.-L. Dong*(董崇禮), "*In Situ X-ray Spectroscopy Unveils Charge-driven CO Oxidation over Cu-TiO_2 Mesospheres*", ACS Sustain. Chem. Eng. **13**, 20451 (2025).
- H. Li, Z. Xu, T.-Y. Chen, F. Meng, H. Chen, C. Liu*(劉承帥), G. Qiu, and C. Feng*(馮春華), "*Microbial Transformation of Fenton Sludge to Crystalline Iron Minerals with Fermentation-derived Phosphorous for Heavy Metal Immobilization*", J. Hazard. Mater. **495**, 139050 (2025).
- M. Li, Y. Jiang, W. Chen*(陳維), Y. Huang, Y. Lu, L. Xu, S. Li, Y. Wu, Z. Xia, R. Wang, S. Wang, and Y. Zou*(鄒雨芹), "*Internal Lattice Oxygen Sites Invert Product Selectivity in Electrocatalytic Alkyne Hydrogenation Over Copper Catalysts*", Nat. Commun. **16**, 3884 (2025).
- S. Li, S. Zhao, S.-F. Hung, L. Deng, L. Wang, F. Shi, A. Dong, Y. Zhang, T.-Y. Chen, F. Hu, L. Li, S. Ramakrishna, Y. Wu, and S. Peng*(彭生杰), "*Oxophilic Sites Mediated Dynamic Oxygen Replenishment to Stabilize Lattice Oxygen Catalysis in Acidic Water Oxidation*", J. Am. Chem. Soc. **147**, 33770 (2025).
- W.-H. Li, L.-C. Hsu, H.-Y. Chen, Y.-C. Chen, H. Y. Teah, Y.-Y. Kung, Y.-M. Tzou, and Y.-T. Liu*(劉雨庭), "*Hybridizing Mg-Fe Layered Double Hydroxide with Pectin Natural Polymer for Organic Ligand-responsive Phosphate Release: An Innovative Controlled-release Phosphorus Fertilizer*", J. Agr. Food Chem. **73**, 7131 (2025).
- C. Lin, T.-Y. Chen, T. Zhou, Y. Wu, C. K. T. Wun, W. Chen, H.-Y. Chen, V. Tung, Z. Guo, T. W. B. Lo*(勞子桓), L. Cai*(蔡亮), Y. Deng*(鄧意達), and P. C. Y. Chow*(周慈勇), "*Regulating the Oxygen Evolution Mechanism Through In Situ Reconstruction of Ru-modified Manganese Oxybromide*", ACS Energ. Lett. **10**, 2641 (2025).
- S.-W. Lin, S.-C. Chen, Y.-R. Lu*(盧英睿), and C.-J. Chen*(陳致融), "*Stepwise chemical-electrochemical cycles for decoupling modular biomass oxidation and hydrogen evolution*", Chem. Eng. J. **505**, 158764 (2025).

- H.-W. Liu, H. Chen, S. Thi, P.-J. Yu, J.-L. Chen, C.-W. Pao, P.-Y. Chang, S.-C. Haw, Y.-F. Liao, Y.-C. Shao, G.-C. Yin, Y.-F. Song, S.-K. Parthasarathi, Y.-T. Weng, and N.-L. Wu*(吳乃立), "*High-capacity Ni-rich Composite Cathodes Having Chemically Fused Interface with Li_3InCl_6 Electrolyte Towards Low-pressure Operating All-solid-state Li-ion Batteries*", Compos. Pt. B-Eng. **293**, 112133 (2025).
- K.-C. Lo, C.-W. Kao, T.-S. Chan, C.-Y. Wu, Y.-M. Lin, and T.-Y. Lin*(林姿瑩), "*A Silver Lining for Space Solar Cells: Ag-enhanced CIGS Solar Cells Resist and Recover From Radiation*", Solar RRL **9**, e202500646 (2025).
- W.-H. Lu, Y.-L. Chen, T.-Y. Chen, H.-H. Chang, H.-L. Chen, A.-Y. Wang, T.-C. Wu, P.-I. Wei, I.-S. Wang, W. K. Pang*, and H.-Y. Chen*(陳翰儀), "*High-entropy NASICON-type $Li_{1.3}Al_{0.4}Ti_{0.5}Zr_{0.5}Sn_{0.5}Ta_{0.1}(PO_4)_3$ with High Electrochemical Stability for Lithium-ion Batteries*", J. Colloid Interf. Sci. **684**, 109 (2025).
- P. Mannu, R. K. Dharman, T. T. T. Nga, A. Mariappan, Y.-C. Shao, H. Ishii, Y.-C. Huang, A. Kandasami, T. H. Oh*, W.-C. Chou, C.-L. Chen, J.-L. Chen, and C.-L. Dong*(董崇禮), "*Tuning of Oxygen Vacancies in Co_3O_4 Electrocatalyst for Effectiveness in Urea Oxidation and Water Splitting*", Small **21**, 2403744 (2025).
- N. A. R. C. Mohamad, K. Chae, Q. Zhou, W.-T. Huang, H. J. Lee, J. Son, J. Moon, Y. Bu, F. Gong*(鞏峰), R.-S. Liu*(劉如熹), J. Kim*, and D. H. Kim*, "*Plasmon-driven Reorientation of Interfacial Water for Wastewater Electrolysis with Light-emitting Diode Illumination*", Adv. Sci. **12**, e07147 (2025).
- H. S. Moon, Y.-J. Yang, G. M. Zewdie, G. Youn, Y.-A. Chen, Y.-P. Chang, K.-C. Hsiao, T.-H. Lin, Y.-D. Lin, J. K.Park, J. Park, Y.-G. Lin, M.-C. Wu, Y.-J. Hsu, H. Shin*, S.-Y. Choi*, and K. Yong*, "*Tailoring Cu_3N_x Clusters on TiO_2 Nanosheets to the Sub-nanometric Scale for Enhancing NH_3 Photosynthesis*", Chem. Eng. J. **515**, 163915 (2025).
- G. Y. Nigussie, Y.-F. Tsai, T.-C. Yang, C.-M. Yang*(楊家銘), and S. S.-F. Yu*(俞聖法), "*An Efficient H_2O_2-based Propylene to Propylene Oxide (HPPO) Reaction Catalyzed by ZnO/ZnO_2 Materials*", J. Mater. Chem. A **13**, 5261 (2025).
- H.-R. Pan, John Wu, C.-M. Tsai, P.-J. Liao, and H.-F. Hsu*(許鏵芬), "*Basicity-controlled C-H Bond Activation by a Structurally Characterized Ni(III)-hydroxo Complex*", J. Am. Chem. Soc. **147**, 27855 (2025).
- Z. Pan, Y. Zhu, Y. Liu, W.-H. Huang, Y. Cui, Y. Zhao, M. Yang, H. Cheng*(程洪飛), N. Alonso-Vante*, and J. Ma*(馬吉偉), "*Improved ORR Performance of Precious Metal-free Fe Single-atom Catalysts by Heteroatom Doping*", Adv. Mater. Interfaces **12**, 2500253 (2025).
- A. M. Tarigan, M. Rinawati, S. Aulia, L.-Y. Chang, C.-Y. Chang, W.-N. Su, S.-C. Haw, W.-H. Huang, H. Setyawan, and M.-H. Yeh*(葉旻鑫), "*Dual-driven Activation of High-valence States in Prussian Blue Analogues Via Graphene-quantum Dots and Ozone-induced Surface Restructuring for Superior Hydrogen Evolution Electrocatalyst*", Small Methods **9**, 2401708 (2025).
  - N. A. T. Than, L. C. Hsu, Y.-H. Chen, K. Huangmee, C.-C. Wang, H. Y. Teah, Y.-M. Tzou, Y.-L. Cho*(卓宴琳), and Y.-T. Liu*(劉雨庭), "*Anaerobic Fe(II) Bio-oxidation by Cyanidiophyceae to Enhance As(III) Removal: A Novel and Efficient Biological Material Toward Resilient Remediation*", Chem. Eng. J. **523**, 168303 (2025).
- Y.-C. Tseng, S.-H. Chen, K.-Y. Liu, Y.-L. Lai, S.-Y. Lee, C.-S. Wu, K.-W. Wang*(王冠文), and T.-Y. Chen*(陳燦耀), "*Local Synergistic Collaboration Between Metallic Bi Clusters, Oxygen Vacancies, and Cu Atom Enhances the Electrochemical CO_2-to-CH_4 Performance of CuO Nanocatalysts*", Chem. Eng. J. **522**, 167417 (2025).
- J. Wan, J. Wu, S. Zheng, J. Yu*(于珈), Y. Dong, R. Wang, T. Xue, J. Li, J. Kuang, C.-K. Peng, G. Chen, Y. Zhang, J. Ma, Y.-G. Lin, L. Peng, X.-G. Zhang, T. Wen*(溫庭斌), S. Yang*(楊遜良), and J.-F. Li*(李劍鋒), "*Biomass-derived Asymmetric N/S-coordinated Cobalt Sites for Selective C=N Bond Construction*", J. Phys. Chem. C **129**, 20960 (2025).
- H. Wang, T.-C. Yang, H. Zheng, Z. Jiang, C.-M. Yang*(楊家銘), and N.-C. Lai*(賴念筑), "*Identification of True Active Sites in N-doped Carbon-supported Fe_2P Nanoparticles Toward Oxygen Reduction Reaction*", J. Colloid Interf. Sci. **678**, 806 (2025).
- J. Wang, M.-T. Liu, C.-S. Hsu, Y.-C. Chu, Y.-F. Liao, C.-W. Pao, T.-S. Chan, W.-T. Chuang, J.-L. Chen, Y.-C. Shao, H. Ishii, N. Hiraoka, C.-Y. Chiang*(蔣慶有), and H. M. Chen*(陳浩銘), "*Resolving Dynamic Behavior of Electrocatalysts via Advances of Operando X-ray Absorption Spectroscopies: Potential Artifacts and Practical Guidelines*", Adv. Mater. **37**, 2418797 (2025).
  - J. Wang, H. Y. Tan, C.-S. Hsu, Y.-C. Chu, C.-W. Chan, K.-H. Chen, X.-R. Lin, Y.-C. Lee, H.-C. Chen, and H. M. Chen*(陳浩銘), "*Adapting Atomic Configuration Steers Dynamic Half-occupied State for Efficient CO_2 Electroreduction to CO*", J. Am. Chem. Soc. **147**, 13027 (2025).
- L. Wang, S.-F. Hung, S. Zhao, Y. Wang, S. Bi, S. Li, J.-J. Ma, C. Zhang, Y. Zhang, L. Li*(李林林), T.-Y. Chen, H.-Y. Chen, F. Hu*(胡峰), Y. Wu, and S. Peng*(彭生杰), "*Modulating the Covalency of Ru-O Bonds by Dynamic Reconstruction for Efficient Acidic Oxygen Evolution*", Nat. Commun. **16**, 3502 (2025).
- C.-Y. Wu, C.-E. Huang, A.-C. Luo, W.-H. Lu, S.-C. Huang, Y.-M. Huang, V. K. Peterson, H.-Y. Liu, C.-L. Chen, Y.-R. Lu, T.-Y. Chen, C.-Z. Lu*(陸成章), W. K. Pang*, and H.-Y. Chen*(陳翰儀), "*Enabling High-performance and High-ratecapability $Na_4MnV(PO_4)_3$ Sodium-ion Battery Cathodes Through Tuning the NASICON Framework*", J. Mater. Chem. A **13**, 2716 (2025).
- M.-C. Wu*(吳明忠), K.-C. Hsiao, C. Fu, T.-H. Lin, Y.-H. Chang, Y.-C. -C., M.-P. Nieh, W.-F. Su, and M. Li*(李明達), "*Giant, Non-perturbative Tuning of Light-matter Interaction of Embedded Quantum Dots in Semiconducting Matrices*", Adv. Compos. Hybrid Mater. **8**, 281 (2025).
- W.-Y. Wu, Y.-S. Lin, L. Iffland, U. Apfel, T.-T. Lu, and W.-F. Liaw*(廖文峰), "*Receptor-mediated and Hydrolytic Denitrosylation of Dinitrosyl Iron Complexes to Yield Amorphous Fe_xO_y and Its Photoinduced Transformation into Crystalline Fe@Fe_xO_y Nanoparticles*", Inorg. Chem. **64**, 12708 (2025).
- F.-Y. Yen, S.-I. Chang, Y.-C. Ting, C.-W. Chang, K.-A. Lee, and S.-Y. Lu*(呂世源), "*In-situ Selective Oxidation Created Cr_2O_3 Assisting CrMnFeCoNi for Ultrahigh Power Density Zinc-air Batteries*", Energy Mater. **5**, 500114 (2025).
- Q. Zhang, Y. Shan, J. Pan, P. Kumar, M. J. Keevers, J. Lasich, G. Kour, R. Daiyan, I. Perez-Wurf, L. Thomsen, S. Cheong, J. Jiang, K.-H. Wu, C.-L. Chiang, K. Grayson, M. A. Green, R. Amal*, and X. Lu*, "*A Photovoltaic-electrolysis System with High Solar-to-hydrogen Efficiency Under Practical Current Densities*", Sci. Adv. **11**, eads0836 (2025).
- Y. Zheng, Q. Wu, H. Wang, P. Wang, W.-H. Huang, Y. Zhao, and G. Chen*(陳光需), "*Selective Biomass Valorization in Neutral Electrolyte by Lowering the O_2 Activation Energy via Tandem Catalysis*", ACS Catalysis **15**, 18155 (2025).
- L. Zhou, H.-W. Tsai, T.-W. Kuo, J.-C. Kao, Y.-C. Lo, J.-M. Chang, T.-H. Chiang, S. Dai*(戴升), K.-W. Wang*(王冠文), and T.-Y. Chen*(陳燦耀), "*Atomic Layered ZnO Between Cu Nanoparticles and a PVP Polymer Layer Enable Exceptional Selectivity and Stability in Electrocatalytic CO_2 Reduction to C_2H_4*", Adv. Sci. **12**, 2501642 (2025).
- S. Zhu, X. Hou, H. Ma, H. Fu, J.-L. Chen, T.-Y. Chen, Z. Dang, and C. Feng*(馮春華), "*Intrinsic Activity of Organic Acids Controlling Photochemical Behavior and Transformation of Schwertmannite in Acid Mine Drainage*", Chem. Geol. **674**, 122569 (2025).

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- A. K. Anbalagan*, W.-K. Chan, M.-H. Wu, F.-C. Hu, H.-H. Chiu, A. Sabbah, M. Chaudhary, S. Gupta, K.-W. Chuang, A. C. Gandhi, C.-Y. Chiang, H.-M. Tsai, S.-C. Haw, K. V. Savunthari, H.-J. Lin, L.-C. Chen, K.-H. Chen, N.-H. Tai, Y.-L. Chueh, S. Yun Wu, H.-Y. T. Chen*(陳馨怡), A. L. Walter*, and C.-H. Lee*(李志浩), "*Revealing Robust Room Temperature Ferromagnetism in Gd-doped Few-layered MoS_2 Thin Films*", Adv. Sci. **12**, e10366 (2025).
- M. E. Ashebir, P. Sabhapathy, O. Nasr, V. Modak, O. Moradlou, A. Sabbah, C.-Y. Huang, S. Nachimuthu, J.-C. Jiang, Y.-L. Hu, C.-H. Hung, L.-C. Chen*(林麗瓊), and K.-H. Chen*(陳貴賢), "*Electronic Structure Engineering of Nickel Single-atom Catalyst by Phosphorous for Efficient Electrocatalytic CO_2 Reduction Reaction in a Proton-rich Microenvironment*", Chem. Eng. J. **509**, 161319 (2025).
- S. Bajaj, S.-J. Chiu, J. W. Chen, P. A. Sino, C.-W. Yang, C.-T. Chen, I.-S. Hwang, Y.-G. Lin, Y. H. Chu, Y.-L. Chueh, and J. M. Wu*(吳志明), "*Quantitative Study of Reversible Nonvolatile VO_2 Thin Films Through Plasma Driven Phase Engineering Process*", Small **21**, 2408656 (2025).
- H.-W. Chang*(張漢威), M.-J. Wu, Y.-C. Su, C.-H. Lee, and Y.-C. Tsai*(蔡毓楨), "*Graphite Pencil Derived Darbon Through Activation-carbonization Synthesis Strategies for Solid-state Symmetric Supercapacitor*", Mater. Res. Bull. **184**, 113245 (2025).
- H.-W. Chang*(張漢威), M.-J. Wu, C.-H. Lee, and Y.-C. Tsai*(蔡毓楨), "*Constructing Glucose-derived Hierarchically Structured Carbon Embedded in Flake Graphite for High-performance Supercapacitors*", Diam. Relat. Mater. **152**, 111902 (2025).
- C.-S. Chen*(陳敬勳), T.-C. Chen, K.-L. Chiu, C.-R. Hsing, L.-Y. Wang, C.-M. Yang, C.-W. Pao, and C.-L. Chen, "*Highly Active Cu-embedded in Magnetic Carbon Nanofibers for the Reduction of 4-nitrophenol*", Chem. Eng. J. **505**, 159103 (2025).
- H. Chen, H.-W. Liu, Y.-C. Lu, P.-J. Yu, C.-H. Liao, C.-C. Wang, T.-S. Chan, H.-S. Sheu, P.-Y. Chang, J.-L. Chen, S.-C. Haw, G.-C. Yin, Y.-F. Song, C.-W. Pao, and N.-L. Wu*(吳乃立), "*Realizing Practical Use of $LiNiO_2$ Cathode in Halide-based All-solid-state Lithium Metal Batteries*", Chem. Eng. J. **519**, 165314 (2025).
- K.-H. Chen, M. Rinawati, S. Aulia, L.-Y. Chang, Y.-S. Chiu, C.-Y. Chang, K.-J. Chen, W.-H. Huang, W.-N. Su, and M.-H. Yeh*(葉旻鑫), "*Enabling Highly Selective H_2O_2 Electrosynthesis on Graphene-based Electrode by P-doped Carbon Nitride Quantum Dots for Self-antibiofouling Dissolved Oxygen Sensor via 2-electron Oxygen Reduction Reaction*", Chem. Eng. J. **519**, 164999 (2025).
- S.-C. Chen, S.-W. Lin, S.-L. Chang, Y.-R. Lu*(盧英睿), and C.-J. Chen*

(陳致融), "*Efficient H_2O_2 Electrosynthesis via Strategic Regulation of Sulfur Coordination in Single-atom Catalysts*", Chem. Eng. J. **521**, 166571 (2025).

- T. H. Chiang*(江姿萱), S.-R. Xu, Y.-S. Chen, H.-W. Chang, T.-C. Huang, and J.-M. Chen, "*A Nanoparticle Metal Schiff Bases Synthesis by Amine Curing Agents Reacts with Waste PET Plastic to Enhance Alkaline Water Electrolysis*", Electrochim. Acta **524**, 146010 (2025).
- Y.-H. Chiu, M. Rinawati, L.-Y. Chang, Y.-T. Guo, K.-J. Chen, H.-C. Chiu, Z.-H. Lin, W.-H. Huang, S.-C. Haw, and M.-H. Yeh*(葉旻鑫), "*Carbon Nitride Quantum Dots/Polyaniline Nanocomposites for Non-invasive Glucose Monitoring Using Wearable Sweat Biosensor*", ACS Appl. Nano Mater. **8**, 2340 (2025).
- Y.-H. Chiu, M. Rinawati, L.-Y. Chang, S. Aulia, C. Li, P.-C. Shi, K.-J. Chen, W.-H. Huang, H. Mizuguchi, and M.-H. Yeh*(葉旻鑫), "*Promoting the Signal Reliability of Non-invasive Biosensors via a N-doped Graphene Quantum Dot Modified Prussian Blue Analogue Protective Layer for Glucose Monitoring*", J. Mater. Chem. B **13**, 7381 (2025).
- Y.-S. Chiu, M. Rinawati, L.-Y. Chang, S. Aulia, P.-C. Shi, S.-C. Haw, W.-H. Huang, N. L. W. Septiani, B. Yuliarto, and M.-H. Yeh*(葉旻鑫), "*High-dielectric TiO_2-mediated g-C_3N_4 Enhanced Self-polarized PVDF Hybridized Film for Highly Sensitive Wearable Triboelectric Pressure Sensors*", Chem. Eng. J. **511**, 161807 (2025).
- K.-W. Chuang, A. K. Anbalagan*, Y.-J. Wong, Amr Sabbah, M.-H. Wu, Mayur Chaudhary, Kim Kisslinger, S.-C. Haw, C.-Y. Chiang, Y.-L. Chueh, L.-C. Chen, Andi M. Barbour, H.-W. Chang, Andrew L. Walter*, and C.-H. Lee*(李志浩), "*Enabling Room-temperature Ferromagnetism in Few-layered MoS_2 Films via Strain Engineering*", Appl. Phys. Lett. **127**, 182406 (2025).
- Y. Deng, X. Mo, S. K.-M. Lai, S.-C. Haw, H. Y. Au-Yeung*(歐陽灝宇), and E. C. M. Tse*(謝俊銘), "*Mechanical and Covalent Tailoring of Copper Catenanes for Selective Aqueous Nitrate-to-ammonia Electrocatalysis*", J. Am. Chem. Soc. **147**, 14316 (2025).
- V. R. Dharmaraj, D. K. Maurya, A. Sarkar, H.-H. Su, Y.-A. Chen, H.-C. Chen, Y.-P. Lin, R.-J. Chung*(鍾仁傑), and R.-S. Liu*(劉如熹), "*High-performance Mg-O_2 Batteries Enabled by Electrospinning PVDF-HFP-based Quasi-solid-state Polymer Electrolyte*", Adv. Energy Mater. **15**, 2405101 (2025).
- S. Gautam*, M. Verma, A. Thakur, J.-M. Chen, and K. H. Chae, "*Swift Heavy Ion Induced Electronic Structure Modifications in ZnO Thin Films: X-ray Absorption Spectroscopy Study*", J. Phys. D- Appl. Phys. **58**, 105308 (2025).
- S. Ghosh, C.-W. Li, C.-E. Hsu, Y.-H. Liang, W.-X. Lin, K.-H. Chen, H.-T. Wang, C.-H. Du, J.-W. Chiou*(邱昭文), H.-M. Tsai, J.-L. Chen, C.-W. Pao, C.-M. Cheng, C.-N. Kuo, C.-S. Lue, S. C. Ray, H.-C. Hsueh*(薛宏中), and W.-F. Pong*(彭維鋒), "*Structural Instability and Charge Transfer Mediated Transition in $Pr_3Co_4Sn_{13}$: A Synchrotron Radiation Based Scattering and Spectroscopic Study*", Phys. Rev. B **111**, 165119 (2025).
- S. Guo, M. A. Tamerd*, C. Li, X. Shi, M. Yang, J. Hou, J. Liu, M. Tang, S.-C. Haw, C.-T. Chen, T.-S. Chan, C.-Y. Kuo, Z. Hu, L. Yang*(楊龍), and J. Ma*(馬吉偉), "*Activating Sodium Intercalation in Cation-deficient Fe_3O_4 Through Mo Substitution*", Small **21**, 2408212 (2025).
- A. G. Hailemariam, M. Qorbani*, T. T. Mamo, R. Putikam, C.-Y. Huang, K. S. Bayikadi, H.-L.Wu*(吳恆良), M.-C. Lin, L.-C. Chen*(林麗瓊), and K.-H. Chen*(陳貴賢), "*Improved Electrochemical Kinetics and Rate Performance of Lithium-ion Batteries by $Li_2FeS_{2-x}F_x$ Cathode Materials*", Commun. Mater. **6**, 143 (2025).
- Y.-M. Hu*(胡裕民), N.-Y. Chen, P.-Y. Chuang*(莊霈于), C.-M. Lin, M.-S. Ho, P. H. Le, S.-C. Wu, C.-H. Chia, T.-C. Han, and S.-R. Jian*(簡膳瑞), "*Structure-property Correlation and Resistive Switching Mechanism of Amorphous and Partially Crystalline Ta_2O_5 Memristors Revealed by In-situ XPS and XAS*", Mater. Today Phys. **59**, 101924 (2025).
- H.-Y. Huang, T.-T. Lin, T. A. Kumaravelu*, P.-C. Wang, D.-H. Wei, T. T. T. Nga, C.-H. Du, P.-H. Yeh, W.-C. Chou, C.-L. Chen, K.-W. Chang*(張剛瑋), and C.-L. Dong*(董崇禮), "*Proton Irradiation-induced Modifications in Electrochromic WO_3-Ta_2O_5 Thin Films: From Electronic Structure to Space Survivability*", J. Electron. Mater. **54**, 1007 (2025).
- J.-Y. Huang, Y.-C. Wen, Y.-T. Lin, P.-J. Chu, Y.-S. Liu, H.-Z. Wang, Y.-P. Chang, Y.-T. Hung, D.-H. Wei*(魏大華), B.-Y. Jin*(金必耀), and R.-S. Liu*(劉如熹), "*Multifunctional Dual-doping Strategy Improving Halide-based Solid-state Electrolyte*", Adv. Energy Mater. **15**, e03135 (2025).
- J.-W. Kang, H.-C. Cheng, H.-J. Chen, S.-C. Huang, C.-H. Lee, C.-L. Kuo, S.-Y. Yu, H.-L. Wu, C.-C. Lin, C.-H. Kuo, H.-H. Chang, C.-W. Hu, S.-C. Haw*(何樹智), H.-Y. T. Chen*(陳馨怡), and H.-Y. Chen*(陳翰儀), "*P_2-$Na_{0.61}Ca_{0.03}[Mg_{2/9}Cu_{1/9}Mn_{2/3}]O_2$ as a High-energy Oxygen Redox Cathode for Na-ion Batteries: Investigation of Cu Substitution and Ca Doping to Enhance Cycling Stability*", Adv. Funct. Mater. **35**, 2504642 (2025).
- A. Kaur, A. Das*, T. L. Kumavat, W.-H. Huang, S. Gupta, J. V. Vas, C.-L. Chen, A. Kandasami, D. Singh, and Y. Sonvane, "*Enhancement of Ferroelectric Polarization in Sm-doped $BaFe_{0.2}Ti_{0.8}O_3$ Ceramics*", J. Phys.-Condens. Mat. **37**, 185602 (2025).
- T. A. Kumaravelu, J.-L. Chen, C.-L. Chen, S.-Y. Chen, D.-H. Wei, S.-H. Chen, T. T. T. Nga, W.-C. Chou, and C.-L. Dong*(董崇禮), "*Electronic Structural Modulation for CO-CO_2 Conversion of Copper-modified Nanoceria Studied by In Situ X-ray Absorption Spectroscopy*", Inorg. Chem. **64**, 5375 (2025).
- T. A. Kumaravelu*, T. T. T. Nga, Y.-C. Shao, H. Ishii, J.-L. Chen, C.-L. Chen, C.-W. Pao, Y.-C. Huang, C.-H. Du, P.-H. Yeh, Y.-P. Chen, A. Kandasami, C.-H. Chen, W.-C. Chou, and C.-L. Dong*(董崇禮), "*Structural Symmetry and Regular Octahedral Atomic Coordination in Nanostructured $NiMoO_3$ for Supercapacitor Electrode Applications*", J. Power Sources **658**, 238245 (2025).
- T. A. Kumaravelu, X.-T. Yu, H.-T. Wang, J. Wang, S. Y. H. Liou, L. C. Kao, W.-T. Yang, C.-J. Yang, Y.-R. Lu, C.-L. Chen, B.-H. Lin, D.-H. Wei*(魏大華), and C.-L. Dong*(董崇禮), "*In Situ X-ray Spectroscopy Unveils Charge-driven CO Oxidation over Cu-TiO_2 Mesospheres*", ACS Sustain. Chem. Eng. **13**, 20451 (2025).
- S. Li, Y. Li, Z. Zhang, X. Shen, H. Ji, Z. Liu, Z. Hu, H. Wang, H. Yu, Z. Hu, S.-C. Haw, C.-T. Chen, Q. Kong, Y. Gao*(高玉瑞), X. Wang*(王雪鋒), R. Yu*(禹日成), Z. Wang*(王兆翔), and L. Chen, "*Interplays Between TM Migration, Cation Mixing and Oxygen Defects and Their Impacts on Degradation of Layer-structured Oxide Cathode Materials*", Energy Storage Mater. **79**, 104337 (2025).
- Y. Li, J. Zhao, S. Zhang, Y. Fan, C.-Y. Kuo, Y.-C. Ku, T.-S. Chan, C.-W. Kao, Y.-C. Huang, C.-T. Chen, S.-C. Haw, C. Jin, H. Zhao, D. Ye*(葉代新), C. Jing*(靜超), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Hexavalent Ru Catalyst with Both Lattice Oxygen and Metal Ion Mechanisms Coactive for Water Oxidation*", J. Am. Chem. Soc. **147**, 26854 (2025).
- Y.-H. Lin*(林裕軒), C.-C. Chen, Y.-H. Chen, Y.-S. Huang, B.-H. Lin, U.-S. Jeng, S.-C. Haw, C.-J. Su, L.-Y. Chang, H.-H. Hsieh*(謝獻旭), and H.-W. Chang*(張漢威), "*Fluorine-free Anodized TiO_2 Nanotube Arrays for Photoelectrochemical H_2O_2 Sensing: Role of Anatase-rutile Phase Transformation*", Surf. Interfaces **74**, 107719 (2025).
- H. Liu, L. Yang, T. Shen, C. Li, T. Kang, H. Niu, W.-H. Huang, C.-C. Chang, M. Yang, G. Cao*(曹國忠), and C. Liu*(劉超峰), "*Distorting Local Structures to Modulate Ligand Fields in Vanadium Oxide for High-performance Aqueous Zinc-ion Batteries*", ACS Nano **19**, 9132 (2025).
- H.-W. Liu, H. Chen, S. Thi, P.-J. Yu, J.-L. Chen, C.-W. Pao, P.-Y. Chang, S.-C. Haw, Y.-F. Liao, Y.-C. Shao, G.-C. Yin, Y.-F. Song, S.-K. Parthasarathi, Y.-T. Weng, and N.-L. Wu*(吳乃立), "*High-capacity Ni-rich Composite Cathodes Having Chemically Fused Interface with Li_3InCl_6 Electrolyte Towards Low-pressure Operating All-solid-state Li-ion Batteries*", Compos. Pt. B-Eng. **293**, 112133 (2025).
- T.-L. Liu and Y.-Y. Lai*(賴育英), "*Investigating the Effect of Incorporating Dimethylaminopropyl Side Chains into a Naphthalenediimide-based Conjugated Polymer*", Adv. Electron. Mater. **11**, 2400610 (2025).
- P. Mannu, R. K. Dharman, T. T. T. Nga, A. Mariappan, Y.-C. Shao, H. Ishii, Y.-C. Huang, A. Kandasami, T. H. Oh*, W.-C. Chou, C.-L. Chen, J.-L. Chen, and C.-L. Dong*(董崇禮), "*Tuning of Oxygen Vacancies in Co_3O_4 Electrocatalyst for Effectiveness in Urea Oxidation and Water Splitting*", Small **21**, 2403744 (2025).
- L. Merinda, R. A. Yuwono, F.-M. Wang*(王復民), N.-L. Wu*(吳乃立), C. D. D. Sundari, C. Khotimah, H.-P. Hsieh, J.-K. Chang, S.-C. Haw, C.-W. Pao, J.-L. Chen, Q. Xu, Y. Wu, C.-L. Chen, and T.-S. Chan, "*An Investigation of Localized Entropy Driven Cathode Electrolyte Interphase to a One-step Complete Deprotonation of Ethylene Carbonate on Ni-rich Layered Material of Lithium-ion Battery*", Chem. Eng. J. **525**, 170703 (2025).
- Z. Mou, Y. Mu, L. Liu, D. Cao, S. Chen, W. Yan, H. Zhou, T.-S. Chan, L.-Y. Chang, J. Guo*(郭俊杰), and X. Fan*(范修軍), "*Non-metal Silicon Single-atom Catalysts with Unsymmetrically Tetradentate O_3N_1 Moiety Enabling Ampere-level H_2O_2 Electrosynthesis*", Small **21**, 2504777 (2025).
- J. Tang, D. Guan, H. Xu, L. Zhao, U. Arshad, Z. Fang, T. Zhu, M. Kim, C.-W. Pao, Z. Hu, J. Ge, and Z. Shao*(邵宗平), "*Undoped Ruthenium Oxide as a Stable Catalyst for the Acidic Oxygen Evolution Reaction*", Nat. Commun. **16**, 801 (2025).
- A. M. Tarigan, M. Rinawati, S. Aulia, L.-Y. Chang, C.-Y. Chang, W.-N. Su, S.-C. Haw, W.-H. Huang, H. Setyawan, and M.-H. Yeh*(葉旻鑫), "*Dual-driven Activation of High-valence States in Prussian Blue Analogues Via Graphene-quantum Dots and Ozone-induced Surface Restructuring for Superior Hydrogen Evolution Electrocatalyst*", Small Methods **9**, 2401708 (2025).
- C.-H. Tso, C.-H. Hsu, J. Wang, P.-Y. Lin, H.-T. Lin, N. Hiraoka, M.-K. Tsai*(蔡明剛), C.-H. Chen*(陳志欣), and H. M. Chen*(陳浩銘), "*Medium Spin Fe^{III} Regulating the Peroxide Selectivity in the Heterogeneous Oxygen Reduction Reaction of Spin-polarized Fe-TAML Complexes*", Mater. Horizons **12**, 9808 (2025).
- J. Wang, H. Y. Tan, C.-S. Hsu, Y.-C. Chu, C.-W. Chan, K.-H. Chen, X.-R. Lin, Y.-C. Lee, H.-C. Chen, and H. M. Chen*(陳浩銘), "*Adapting Atomic Configuration Steers Dynamic Half-occupied State for Efficient CO_2*

Electroreduction to CO", J. Am. Chem. Soc. **147**, 13027 (2025).
- X. Wang, J. Wang, H. Hu, C. Yin, L.-Y. Chang, Y. Zhu, J. Wang*(王家成), and M. Yang*(楊明輝), "*Harnessing Spin-lattice Interplay in Metal Nitrides for Efficient Ammonia Electrosynthesis*", Adv. Mater. **37**, 2504505 (2025).
- Z. Wang, Q. Kang, Y. Chen, X. Zheng, Y. Huang*(黃洋洋), S.-C. Haw, H. Wang, Z. Hu*(胡志偉), and W. Luo*(羅巍), "*Extended-life SiO_x/C||Ni-rich NCM Batteries Enabled by Inner Helmholtz Plane Modulation with a Self-assembled Monolayer*", Mater. Sci. Eng. R-Rep. **163**, 100948 (2025).
- H. Wei, C. Wang, X. Ye, L. Gao, T. Wang, W.-H. Huang*(黃偉翔), C. Feng*(馮聰), W.-S. Liao, M.-H. Yeh, G.-X. Miao, and J. Fu*(傅婧), "*Surface Electric Field Shielding for Passivation-free Zinc Anode Dissolution in Alkaline Batteries*", Small **21**, 2502237 (2025).
- P. L. Yadav, P. Joshi, V. C. Lokhande, C.-F. Lee, S.-H. Hsieh, H.-T. Wang, Y.-C. Shao, C.-W. Pao, C.-H. Chen, J. B. Yadav, M. P. Ghimire, N. G. Deshpande, and R. B. Patil*, "*Revisiting the Electronic Structure of α-MnO_2 for Energy Storage Application*", J. Phys. Chem. C **129**, 2619 (2025).
- C.-C. Yang, S. Makovetskyi, Y.-C. Yang, I.-C. Hsu, S.-H. Hsieh, Y.-C. Lee, S.-C. Haw, F.-T. Tsai*(蔡富浔), and W.-F. Liaw*(廖文峯), "*Competitive Optimization of Interfacial Water Dissociation and Hydroxyl Reductive Desorption of MoCoNi-based Catalysts for Superior Alkaline Hydrogen Evolution*", Small **21**, 2503278 (2025).
- R. Yi, X. Mo, H. T. Yau, T. Zhou, Z. Guo, S.-C. Haw, and E. C. M. Tse*(謝俊銘), "*Interlayer Expansion Enables Electrochemical Domino C-N Coupling for Formaldoxime Formation in Aqueous Media*", J. Am. Chem. Soc. **147**, 32809 (2025).
- Z. Zhang, Y. Li, X. Shen, L. Yang, C. Zhang, Y. Liu, B. Wang, C.-Y. Kuo, S.-C. Haw, C.-T. Chen, C.-W. Pao, H.-Y. Huang, D.-J. Huang, J. Ju, J. Ma, Z. Hu, Y. Gao*(高玉瑞), X. Wang*(王雪鋒), R. Yu, Z. Wang*(王兆翔), and L. Chen, "*Breaking the Vicious Spiral to Suppress Oxygen Loss in Li-rich Oxide Cathode Materials*", Adv. Mater. **37**, 2505724 (2025).
- E. Zhao, J. Morales-Vidal, Y. Y.ang, S. Mitchell, Y. Zhu, Z. Hu, J.-M. Chen, S.-C. Haw, T.-S. Chan, Z. Fan, Z.-J. Wang*(王竹君), N. López*, J. Pérez-Ramírez*, and Z. Chen*(陳祖鵬), "*Diatomic Palladium Catalyst for Enhanced Photocatalytic Water-donating Transfer Hydrogenation*", J. Am. Chem. Soc. **147**, 2029 (2025).
- Y. Zhu, J. Wang, G. Weiser, M. Klingenhof, T. Koketsu, S. Liu, Y. Pi, G. Henkelman, X. Shi, J. Li, C.-W. Pao, M.-H. Yeh, W.-H. Huang*(黃偉翔), P. Strasser*, and J. Ma*(馬吉偉), "*Ru Single Atoms and Sulfur Anions Dual-doped NiFe Layered Double Hydroxides for High-current-density Alkaline Oxygen Evolution Reaction*", Adv. Energy Mater. **15**, 2500554 (2025).

TLS 21A1 U90 – (White Light) Chemical Dynamics (PRT 75%)

- O. Dominguez-Flores, R. Navarro-Severiano, D. Ochoa-Resendiz, O. Quiroz-Cardoso, A. Rodriguez-Hernandez, J. Porcayo-Calderon, F. J. Hernandez-Campos, S.-H. Lee, R. Hernandez-Lamoneda, and A. Quinto-Hernandez*, "*Photodissociation Dynamics of Ethyl Formate at 193 nm-based Synchrotron Radiation and AB Initio Calculations: Hydrogen Elimination and Secondary Dissociations*", Phys. Chem. Chem. Phys. **27**, 14851 (2025).

TLS 21A2 U90 – (White Light) Photochemistry

- S.-L. Chou, S.-Y. Lin, Y.-H. Wu, T.-P. Huang, M.-Y. Lin, Y.-Y. Lee, S.-C. Weng*(翁世璋), H.-F. Chen*(陳慧芬), and Y.-J. Wu*(吳宇中), "*A Novel Method for Synthesis of Graphene Oxide Thin-film Utilizing Vacuum UV Exposure*", Opt. Mater. **160**, 116697 (2025).
- S.-L. Chou, C.-H. Chin, J. F. Ogilvie, and Y.-J. Wu*(吳宇中), "*VUV Photolysis of Silane with Nitric Oxide in Solid Neon*", Low Temp. Phys. **51**, 406 (2025).
- W.-J. Huang, S.-L. Chou, C.-H. Chin, S.-Y. Lin, and Y.-J. Wu*(吳宇中), "*Infrared Spectroscopic Identification of Mass-selected Benzonitrile Ions in Neon Matrices: Astrochemical Implications*", J. Phys. Chem. Lett. **16**, 5412 (2025).

TLS 21B1 U90 – (CGM) Angle-resolved UPS

- T.-Y. Chen, C.-E. Hsu, C.-Y. Hei, Y.-N. Hsu, D. Mikolas, B.-H. Chen, C.-H. Lin, Y.-T. Lee, C.-M. Cheng, F. Komori, I. Matsuda, C.-Y. Mou, W. W. Pai*(白偉武), H.-C. Hsueh*(薛宏中), and S.-J. Tang*(唐述中), "*Bilayer Germanene Growth as a Chiral Heterostructure*", Phys. Rev. B **112**, L161406 (2025).
- S. Ghosh, C.-W. Li, C.-E. Hsu, Y.-H. Liang, W.-X. Lin, K.-H. Chen, H.-T. Wang, C.-H. Du, J.-W. Chiou*(邱昭文), H.-M. Tsai, J.-L. Chen, C.-W. Pao, C.-M. Cheng, C.-N. Kuo, C.-S. Lue, S. C. Ray, H.-C. Hsueh*(薛宏中), and W.-F. Pong*(彭維鋒), "*Structural Instability and Charge Transfer Mediated Transition in $Pr_3Co_4Sn_{13}$: A Synchrotron Radiation Based Scattering and Spectroscopic Study*", Phys. Rev. B **111**, 165119 (2025).
- H.-H. Jia, Y. Nakata, S. Souma, K. Sugawara, Y.-H. Chan, C.-M. Cheng, M.-C. Chen, T. Sato, C.-W. Luo, A. Chainani, and P.-H. Lin*(林秉慧), "*Ultrafast relaxation dynamics and nonequilibrium processes in graphite*", Phys. Rev. B **111**, 195430 (2025).
- X. Liang*(梁喜輝), D.-A. Luh*(陸大安), and C.-M. Cheng, "*Distinct 2D p(2×2) Sn/Cu(111) Superstructure at Low Temperature: Experimental Characterization and DFT Calculations of Its Geometry and Electronic Structure*", Nanomaterials **15**, 1684 (2025).
- S.-S. Wong, Z.-Y. Lin, S.-Z. Ho, C.-E. Hsu, P.-H. Li, C.-Y. Chen, Y.-F. Huang, K.-E. Chang, Y.-C. Hsieh, C.-H. Chen, M.-H. Lee, M.-W. Chu, K.-I. Lin, T.-M. Chen, Y.-C. Chen*(陳宜君), H.-C. Hsueh*(薛宏中), C.-M. Cheng*(鄭澄懋), and C.-L. Wu*(吳忠霖), "*Epitaxial Ferroelectric Hexagonal Boron Nitride Grown on Graphene*", Adv. Mater. **37**, 2414442 (2025).

TLS 21B2 U90 – Gas Phase

- W. Chao*(趙竑), T.-P. Huang, T.-Y. Kao, C.-H. Chang, M. Okumura, C. J. Percival, F. A. F. Winiberg*, and Y.-Y. Lee, "*Thermal Stability of Thionyl Chloride and the Sulfinyl Chloride Radical Determined by Cl-S Bond Energy*", J. Chem. Phys. **163**, 164311 (2025).
- C.-D. Li, C.-F. Chou, Y.-F. Tseng, B.-J. Lin*(林本堅), T.-S. Gau, P.-H. Chen, P.-W. Chiu, S.-Z. Chen, S.-L. Tsai, W.-B. Jian, and J.-H. Liu*(劉瑞雄), "*A highly Hydroxylated 6-tin Oxide Cluster Serves as an Efficient e-beam and EUV-photoresist to Achieve High-resolution Patterns*", Nanoscale Adv. **7**, 1838 (2025).
- C.-D. Li, T.-A. Lin, B.-J. Lin*(林本堅), P.-H. Chen, S.-Z. Chen, P.-W. Chiu, and R.-S. Liu*(劉瑞雄), "*Enhanced Edge Etching Resistance and EUV Lithographic Performance of a Tin-oxide Photoresist via a Blend Strategy*", ACS Appl. Nano Mater. **8**, 18401 (2025).
- T.-I. Yang, Y. Y. Hui, P.-J. Wu, T.-P. Huang, B.-M. Cheng, Y.-Y. Lee, and H.-C. Chang*(張煥正), "*Light Yields of Diamonds with Nitrogen-vacancy Centers as Scintillators for Ionizing Radiation from 80 to 1200 eV*", J. Phys. Chem. C **129**, 2739 (2025).

TLS 23A1 IASW – Small/Wide Angle X-ray Scattering

- A. G. AboElsood, Y. Xiang, I.-M. Lin, C.-R. Chen, and Y.-W. Chiang*(蔣酉旺), "*Coincident Augmentation and Alignment of Lamellar Stacking Structures for Rapid Fabrication of Solid-state Polymer Photonic Crystal Films*", J. Taiwan Inst. Chem. Eng. **172**, 106107 (2025).
- Q.-N. Bui, C.-J. Su, and Y. Tai*(戴嘉), "*Phenethylammonium-induced edge Passivation for Regulated Growth of Dual-spacer Ruddlesden-popper Perovskite Films*", Mater. Today Energy **54**, 102055 (2025).
- P. F. Chan, Y. Luo, H. Cheng, X. Wang, N. Zhao, J. Wu, C.-J. Su, J.-M. Lin, H. Zhang, and X. Lu*(路新慧), "*Ultra-thin Lead Sulfide Capping for Stabilizing Tin Halide Perovskite Solar Cells*", Small **21**, e06340 (2025).
- C.-Y. Chang, G.-M. Manesi, Y.-H. Chen, Y.-J. Tsai, H.-Y. Su, A. Avgeropoulos*, and R.-M. Ho*(何榮銘), "*Architecture Effect on Network Phase Formation from Controlled Self-assembly of High-χ Block Copolymers*", Macromolecules **58**, 12574 (2025).
- C.-Y. Chang, C.-L. Liu, S.-J. Wang, F.-E. Szu, H.-Y. Lin, K.-S. Chuang, M.-K. Leung, and Y.-C. Lin*(林彥丞), "*Alicyclic Design of Sulfonated Polyimide Membranes with a Tricyclodecane Diamine for Improved Ion Crossover Blocking in Vanadium Redox Flow Batteries*", ACS Polym. Au **5**, 589 (2025).
- C.-Y. Chen, H.-C. Lin, P.-E. Jan, H.-M. Chen, Y.-T. Chuang, C.-F. Li, Y.-C. Huang, and H.-W. Lin*(林皓武), "*Dual-mode Photonic Synapse Based on a Lead-free 2D Ruddlesden-popper Perovskite for Neuromorphic Vision*", ACS Appl. Mater. Interfaces **17**, 48547 (2025).
- M.-H. Chen, Y.-C. Huang, F.-E. Szu, J.-Y. Chen, M.-K. Leung, and Y.-C. Lin*(林彥丞), "*N-type Semiconducting Polymers with an Improved Isotropic Mobility-stretchability Stability by Using Structural Isomers as Conjugation Break Spacers*", RSC Appl. Interfaces **2**, 1784 (2025).
- H.-T. Cheng, A. Kato, Y.-C. Tseng, C.-Y. Yeh, H.-W. Yu, T. Higashihara*(東原知哉), and C.-C. Chueh*(闕居振), "*Tailoring Block Copolymer-type Compatibilizers to Enhance the Performance and Processability of Inverted All-polymer Solar Cells*", J. Mater. Chem. A **13**, 34375 (2025).
- Q.-P. Cheng, N. K. Mandsberg, P. A. Levkin*, and S.-H. Hsu*(徐善慧), "*UV-induced Photopatterning of the Thermoresponsive Properties of a Poly(Ethylene glycol) Methylether Acrylate-co-poly(N-isopropylacrylamide) Hydrogel*", Small Struct. **6**, 2400560 (2025).
- Y.-H. Cheng, T.-W. Chang, T. Nishimura, Y.-C. Lai, C.-J. Su, J. Wang, T. Isono*(磯野拓也), T. Satoh*(佐藤敏文), and H.-L. Chen*(陳信龍), "*Accessing Frank-Kasper Phases via Blending of Architecturally Distinct and Sustainable Sugar-based Block Co-oligomers*", Macromolecules **58**, 8686 (2025).
- C.-C. Cho, H.-H. Huang, B.-C. Jiang, W.-Z. Yang, Y.-N. Chen, and H. S. Yuan*(袁小琀), "*Histone Modification-driven Structural Remodeling Unleashes DNMT3B in DNA Methylation*", Sci. Adv. **11**, eadu8116 (2025).
- H.-Y. Chou, C.-Y. Li, Y.-C. Huang, C.-H. Chung, and Y.-C. Lin*(林彥丞), "*Revealing the Potential Functionality of Deep Eutectic Solvents as A Doping Electrolyte in Organic Electrochemical Transistors*", Electrochim. Acta

521, 145912 (2025).
- C.-Y. Chu*(朱哲毅), T.-Y. Lin, W.-S. Chiu, Y.-T. You, C.-C. Chen, S.-J. Lin, H.-M. Wang, Y.-J. Wang, C.-J. Su, and U.-S. Jeng, "*A New Method for Fabrication of the Oriented Double Gyroid Phase in Diblock Copolymers Hybridized with an Extremely Low Content of Magnetic Nanoparticles by Low-intensity Magnetic Fields*", Macromolecules **58**, 5955 (2025).
- Y.-C. Chuang, J.-W. Su, Y.-C. Sung, J.-C. Tsai*(蔡敬誠), J.-W. Huang, S.-W. Shao, and R.-M. Ho*(何榮銘), "*Synthesis and Self-assembly of a Diblock Copolymer Consisting of a Cyclic Olefin Copolymer and Polycaprolactone*", Polym. Chem. **16**, 2162 (2025).
- C.-H. Chung, Y.-C. Huang, S.-W. Su, C.-J. Su, U.-S. Jeng, J.-Y. Chen, and Y.-C. Lin*(林彥丞), "*Partially Degradable N-type Conjugated Random Copolymers for Intrinsically Stretchable Organic Field-effect Transistors*", Macromol. Rapid Comm. **46**, 2401057 (2025).
- J. Cong, Z.-H. Huang, S.-W. Liu, Z. Luo*(羅正輝), F.-Z. Liu, Z. Chen, K.-M. Lee, Y.-C. Huang*(黃裕清), and C. Yang*(楊楚羅), "*Efficient SWIR Organic Photodetectors with Spectral Detection Extending to 1.4 μm Using a Benzobisthiadiazole-based Acceptor*", Small **21**, 2410418 (2025).
- Y.-R. Hu, H.-Y. Lin, and C.-T. Lo*(羅介聰), "*Thermal Treatment Induced Crystal Development and Crystal Orientation Change in Electrospun Coaxial Fibers Comprising Dual Crystalline Polymers*", Macromol. Rapid Comm. **46**, 2400731 (2025).
- Y.-B. Huang, Y.-K. Li, S. B. Patil, D.-Y. Wang, U.-S. Jeng, and Y.-H. Lai*(賴英煌), "*Plasmon-enhanced Electrochemical CO_2 Reduction on Dendritic Gold Nanostructures with High Selectivity and Turnover Frequency*", ACS Appl. Energy Mater. **8**, 10458 (2025).
- Y.-C. Huang, S. Yamamoto, J.-Y. Chen, C.-J. Su, U.-S. Jeng, T. Higashihara*(東原知哉), and Y.-C. Lin*(林彥丞), "*Conjugated Multiblock Copolymers and Microcracked Gold Electrodes Applied for the Intrinsically Stretchable Field-effect Transistor*", ACS Appl. Mater. Interfaces **17**, 21521 (2025).
- Z.-H. Huang, Y.-R. Chen, H.-C. Cha, S.-L. Jeng, K.-M. Lee*(李坤穆), and Y.-C. Huang*(黃裕清), "*Mechanistic Insights into Additive-driven Dark Current and Responsivity in Organic Photodetector with Varied Film Thickness*", Surf. Coat. Tech. **516**, 132701 (2025).
- S. İde*, S. Bayarı*, W. T. Chuang, Y.-C. Huang, U.-S. Jeng, and T. Türkeş, "*Micro and Nanoscale Structural Properties of the Spider Dragline Silks*", Int. J. Biochem. Res. Rev. **34**, 37 (2025).
- B.-H. Jiang, Z.-R. Huang, C.-J. Su, Z.-E. Shi, C. K. Chan, Y.-C. Hsu, Y.-Y. Yu*(游洋雁), and C.-P. Chen*(陳志平), "*High-efficiency All-polymer Ternary Blends Enable Exceptional Thermal Stability in Organic Photovoltaics*", J. Mater. Chem. A **13**, 27152 (2025).
- B.-H. Jiang, P.-J. Weng, Y.-W. Su, Z.-E. Shi, Y.-R. Lin, T.-S. Shieh, and C.-P. Chen*(陳志平), "*Minimizing Thermally Activated Carrier Generation for Ultra-low Dark Current Density and Enhanced Thermal Stability in Air-stable All-polymer Photodetectors*", Macromolecules **58**, 3983 (2025).
- N. Kim, Y. Kim, J. Kwon, G.-M. Kim, H. J. Jung, J. Park, S. Lee, S. Park, D. C. Lee, Y.-C. Huang*(黃裕清), and B. Shin*, "*Improving the Performance of Vacuum-deposited Perovskite Light-emitting Diodes via a Tailored Sequential Deposition Strategy*", ACS Appl. Mater. Interfaces **17**, 56289 (2025).
- Y.-C. Lai, C.-Y. Chen, C.-J. Su*(蘇群仁), and H.-L. Chen*(陳信龍), "*Mesomorphic Phases of the Electrostatic Complexes of Amphiphilic Surfactants with Low-generation Dendrimers*", Giant **25**, 100369 (2025).
- Y.-H. Lai, Y.-J. Huang*(黃逸仁), L.-P. Chen, T.-N. Lam, W.-C. Ko, C.-J. Su, and C.-C. Wang, "*High Sensitivity Flexible Hybrid P(VDF-TrFE-CTFE)/ZnO Sensors for Elbow and Knee Rehabilitation Monitoring*", Polymer **332**, 128505 (2025).
- Y.-T. Lai, C.-H. Chen, M.-H. Yu, H.-Y. Kuo, I.-C. Ni, B.-H. Lin, H. Kim, C.-C. Kuo, Y.-J. Lu, and C.-C. Chueh*(闕居振), "*Dual Functionality of Carbazole-based Phosphonic Acid Molecular Additives Realizes Efficient Hole Transport Layer-free Perovskite Light-emitting Diodes*", Chem. Eng. J. **504**, 158876 (2025).
- C.-F. Li, S.-H. Huang, Y.-R. Chen, H.-C. Cha, S.-Y. Chung, Y.-H. Hsiao, F.-Y. Tsai*(蔡豐羽), and Y.-C. Huang*(黃裕清), "*Sequential Slot-die Coating of Perovskite Solar Cell Modules Under Ambient Conditions with Precise Phase-transition Control*", Chem. Eng. J. **517**, 164194 (2025).
- C.-H. Liao, M.-Y. Shen, Y.-J. Wang, T.-Y. Yu, R.-J. Jeng, T.-I. Yang, M. B. Dickerson, C.-S. Hung, J. S. Knopp, H.-C. Wu*(吳亘承), and S.-H. Tung*(童世煌), "*Weaving Strength and Conductivity: Spider Silk-modulated Polymer Electrolytes for High-performance All-solid-state Lithium-metal Batteries*", J. Mater. Chem. A **13**, 36072 (2025).
- A.-S. Lin, S. K. Siddique, Y.-T. Xie, C.-C. Lee, H. Sadek*, and R.-M. Ho*(何榮銘), "*Well-ordered Nanonetwork Invar from Templated Electrochemical Deposition as Mechanical Metamaterials*", Small **21**, 2502361 (2025).
- C.-C. Lin, S.-K. Huang, W.-N. Tseng, C.-J. Su, C.-C. Huang, C.-Y. Huang, C.-Y. Yu, M.-H. Lai, J.-Y. Sun, Y.-C. Chao, H.-S. Hsu, C.-W. Luo, Y.-M. Chang, C.-C. Chen*(陳家俊), and C.-W. Chen*(陳俊維), "*Chirality-regulated Spin-polarization of Perovskite Nanoplates for Photocatalytic CO_2 Reduction Reaction*", J. Am. Chem. Soc. **147**, 40347 (2025).
- H.-C. Lin, Y.-C. Liao, and S.-H. Tung*(童世煌), "*Improving Mechanical Properties of Biodegradable Polybutylene Succinate/Cellulose Nanocrystal Composites Using Epoxidized Soybean Oil*", Polymer **333**, 128698 (2025).
- Y.-H. Lin, Y.-C. Chen, A. Sahare, Y.-C. Lai, C.-J. Su, J.-C. Tsai, K. Yamamoto*(山本勝宏), and H.-L. Chen*(陳信龍), "*Interface Densification in a Microphase-separated Diblock Copolymer Resolved by Small-angle X-ray Scattering*", J. Appl. Crystallogr. **58**, 869 (2025).
- Y.-H. Lin*(林裕軒), C.-C. Chen, Y.-H. Chen, Y.-S. Huang, B.-H. Lin, U.-S. Jeng, S.-C. Haw, C.-J. Su, L.-Y. Chang, H.-H. Hsieh*(謝獻旭), and H.-W. Chang*(張漢威), "*Fluorine-free Anodized TiO_2 Nanotube Arrays for Photoelectrochemical H_2O_2 Sensing: Role of Anatase-rutile Phase Transformation*", Surf. Interfaces **74**, 107719 (2025).
- H. Liu, Y. Li, Z. Nie, Y. Fu, Z. Bi, S. Zhu, L. Chen, G. Cai, P. F. Chan, L. Huang, L. Xu, C.-J. Su, U.-S. Jeng, G. Zhang, F. Huang, W. Ma, X.-K. Chen, Y. Ke*(柯于斌), M. C. Tang*(鄧敏聰), and X. Lu*(路新慧), "*Resolving Ternary Morphology for High-performance Thickness-insensitive Organic Solar Cells*", ACS Appl. Mater. Interfaces **17**, 66924 (2025).
- Y. Liu, J. Deng, S. Tan, X. Ou, J. Luo, J. Fang, Z. Zhao*(趙早文), C.-L. Chen, R. Zeng, X. Zhang, H. Li*(李紅), J. Zhang, and R. Zhao*(趙瑞瑞), "*Achieving Stable Cathode-electrolyte Interface via In-situ Electrochemical Structural Rearrangement for High-voltage Layered Cathodes*", J. Colloid Interf. Sci. **699**, 138172 (2025).
- H.-C. Lo, J.-D. Hu, C.-M. Chou, C.-Y. Chen, J.-M. Lin, C.-W. Chen, C.-L. Wang, W.-T. Chuang, and K.-Y. Wu*(吳冠毅), "*Enhancing Mechanical Properties of Wet-spun PEDOT: PSS Conductive Fibers via Molecular Weight Engineering of PSS*", Eur. Polym. J. **235**, 114085 (2025).
- H. M. Ng, B. Zou, A. Sergeev, Y. Fu, P. F. Chan, Z. Yao, Q. Wang, Z. Li, C.-J. Su, U.-S. Jeng, X. Hu, G. Li, X. Lu, K. S. Wong, Z.-G. Zhang, Y. Chen, W.-Y. Wong*(黃維揚), H. Yu*(于涵), and H. Yan*(顏河), "*Improved Efficiency and Stability of Outdoor and Indoor Organic Photovoltaics with Suppressed Voltage Loss via Alkoxylation on Dimeric Giant Acceptors Featured as Supramolecular Stabilizers*", Energ. Environ. Sci. **18**, 6587 (2025).
- A. S. Panda, C.-H. Tung, J.-C. Chuang, T. A. Nguyen, T. Trinh, P.-C. Chen, T. Shastry, F.-R. Chen, M.-C. Lee, C.-C. Lee*(李昌駿), and R.-M. Ho*(何榮銘), "*Stress-induced Directed Self-assembly of Perpendicularly Oriented Block Copolymer Lamellae for Lithographic Density Multiplication*", ACS Appl. Mater. Interfaces **17**, 56542 (2025).
- S. Prusty, H.-K. Hsu, M. Madasu, A. Rani, J.-H. Fu, L.-T. Lin, M.-H. Lee, M.-W. Chu, C.-H. Kuo, and Y.-T. Chan*(詹益慈), "*Harnessing Dynamic Heteroleptic Complexation for Self-assembly of Robust Nested Metallo-supramolecular Cages*", J. Am. Chem. Soc. **147**, 33914 (2025).
- Z.-E. Shi, Y.-F. Fu, B.-S. Peng, T.-C. Hung, Deebakkrishnan Ganesan, Rajendiran Balasaravanan, S.-H. Hong, C.-L. Liu, C.-J. Su, M.-C. Chen*(陳銘洲), and C.-P. Chen*(陳志平), "*Tailoring Anchoring Functionalities of Self-assembled Materials for Efficient Wide-bandgap Perovskite Solar Cells*", Chem. Eng. J. **526**, 171321 (2025).
- S.-W. Su, H. Shimizu, M. Matsuda, P.-H. Chen, Y.-H. Tung, Y.-C. Huang, C.-Y. Li, T. Higashihara*(東原知哉), and Y.-C. Lin*(林彥丞), "*Mobility and Stability Enhancements of Conjugated Polymers with Diastereomeric Conjugation Break Spacers in Organic Electrochemical Transistors*", Macromolecules **58**, 5807 (2025).
- Y.-W. Su, C.-H. Chen, B.-H. Jiang, H.-Y. Huang, T.-C. Lu, B. Chang, C.-P. Chen*(陳志平), and K.-H. Wei*(韋光華), "*Enhancing Performances of Organic Photovoltaics by Incorporating Small Molecule Stereoisomers as the Third Component*", J. Mater. Chem. C **13**, 17367 (2025).
- Y.-S. Sun*(孫亞賢), Y.-Q. Jian, S.-T. Yang, P.-H. Chiang, and C.-J. Su, "*Structural Evolution and Nanodomain Formation in Blend Films of a Block Copolymer and Homopolymer*", Soft Matter **21**, 277 (2025).
- Y.-S. Sun*(孫亞賢), B.-C. Zhao, Orion Shih, C.-Y. Chen, C.-J. Su, and J.-M. Lin, "*Tunable Formation of Two-dimensional Nanostructures and Complex Crystals via Lead(II) Bromide Complexation and Inclusion Crystallization with Polystyrene-block-poly (Ethylene oxide) in 1,3,5-trimethylbenzene*", Nanoscale **17**, 24208 (2025).
- Y.-S. Sun*(孫亞賢), B.-C. Zhao, C.-C. Yang, O. Shih, C.-Y. Chen, C.-J. Su, and J.-M. Lin, "*Hybrid Hairy Two-dimensional Nanostructures with Tunable Morphologies by Inclusion Crystallization of Lead Bromide Complexes with Polystyrene-block-poly(Ethylene oxide)*", Langmuir **41**, 31780 (2025).
- G. Tian, Y. Chen*(陳瑤), D. Hu, P. Huang, C.-J. Su, U.-S. Jeng, H. Liu, S. Lee, K. Yang, T. Duan, X. Lu, C. Yang, S. Lu*(陸仕榮), and Z. Xiao*(肖澤云), "*Tailoring Selenium Alkyl Chain-containing Small Molecule Donor Enables Efficient Ternary Solar Cells with Reduced Charge Recombination*", Chem. Eng. J. **513**, 163009 (2025).
- D. S. Tomar, R. S. Chen, and S. Chattopadhyay*(薛特), "*Photogating-enhanced Photodetection in Substrate-assisted Borophene-graphene Hybrids*", Nanoscale

17, 19363 (2025).
- D. S. Tomar, V. Sridhar, R. S. Chen, C.-T. Wu, and S. Chattopadhyay*(薛特), "*Record Photoresponsivity in Hydrogenated Borophene Broadband Photodetector*", ACS Photonics **12**, 6091 (2025).
- C.-E. Tsai, Y.-T. Wang, and Y.-H. Lai*(賴英煌), "*Surface-Engineered Ir/Au Aendritic Catalysts with Minimal Iridium Loading for Efficient Alkaline Oxygen Evolution*", Mater. Adv. **6**, 5677 (2025).
- Y.-H. Tsai and C.-T. Lo*(羅介聰), "*Confined Crystallization and Hydrolytic Degradation Behavior of Dual-crystalline Core-sheath Fibers Comprising Immiscible Polymers*", J. Polym. Sci. **63**, 2187 (2025).
- W.-T. Tseng, P.-Y. Yen, Y.-H. Wang, W.-Y. Huang, W.-T. Chuang, and K.-Y. Wu*(吳冠毅), "*Composition-dependent Structural Modulation in st-PMMA/C_{60} Inclusion Complex Fiber and Its Influence on Vapochromic Response*", ACS Appl. Polym. Mater. **7**, 3863 (2025).
- T. T. N. Vo, Y.-W. Chang, C.-J. Su, U.-S. Jeng, C.-C. Cheng, Y.-S. Sun*(孫亞賢), and W.-T. Chuang*(莊偉綜), "*Rheo-SAXS Study on Electrically Responsive Hydrogels with Shear-induced Conductive Micellar Networks for On-demand Drug Release*", J. Appl. Crystallogr. **58**, 909 (2025).
- K.-C. Wu, J.-W. Chang, Y.-C. Chen, Y.-D. Chen, J.-C. Lin, Y.-H. Lai, C.-J. Su* (蘇群仁), and D.-Y. Wang*(王迪彥), "*Unveiling the Mysterious Structure Growth of 2D and 3D All-inorganic Perovskite Nanocrystals in Solution Phase Dynamically by Using Small-wide Angle X-ray Scattering Spectroscopy*", Small Methods **9**, 2500065 (2025).
- Y.-J. Xue, C.-Y. Chang, C.-M. Hung, C.-C. Tseng, J.-W. Chang, C.-J. Su, C.-L. Tsai, H.-C. Lu, K.-H. Huang, K.-Y. Tai, C.-Y. Ku, C.-S. Wu, S.-Y. Chien, S.-D. Yang, B.-H. Jiang, C.-P. Chen, P.-T. Chou*(周必泰), U.-S. Jeng*(鄭有舜), and Y.-J. Cheng*(鄭彥如), "*Side-chains Engineered Self-assembly of Ortho-benzodipyrrole-based Acceptors: Comprehensive Exploration of Structure-interface-photovoltaics Correlations*", Adv. Funct. Mater. **35**, e04705 (2025).
- Z.-L. Yan, T.-M. Hsu, C.-H. Wu, J.-S. Benas, Y.-C. Huang, W.-C. Chen, B.-H. Lin, M.-H. Chen, J.-H. Lin, H. Tsai, C.-C. Chue, C. Adachi*, R.-J. Jeng*(鄭如忠), and C.-C. Kuo*(郭霽慶), "*Flexible Mechanical Response Device With Optical Logic Emission Enabled by Synergistic Crystallization Engineering of Ester Polymer and Perovskite*", Adv. Sci. **12**, e08812 (2025).
- C.-H. Yang, Y. Wei, C.-Y. Tsao, and C.-C. Hua*(華繼中), "*Revisiting the Solution Properties of Sodium Alginate in Aqueous Media*", Soft Matter **21**, 7393 (2025).
- S.-L. Yeh, C.-Y. Chang, and R.-M. Ho*(何榮銘), "*Reticulation of Block Copolymer Nanostructures from Perforation*", ACS Appl. Mater. Interfaces **17**, 12676 (2025).
- P.-J. Yu, P.-Z. Yu, W.-C. Chen, H. Li, B.-H. Lin, C.-C. Kuo, Y.-C. Lin*(林彥丞), R. Borsali*, and W.-C. Chen*(陳文章), "*Regulating the Perovskite Nanocrystal Allocations in Carbohydrate Block Copolymers through Architecture Engineering for Nonvolatile Phototransistor Memory*", Mater. Today Nano **29**, 100563 (2025).
- P.-J. Yu, W.-C. Chen, Y.-S. Wu, B.-H. Lin, Y.-C. Lin*(林彥丞), R. Borsali*, and W.-C. Chen*(陳文章), "*Oligosaccharide Block Copolymers with Branched Architectures and Channel Energy Level Optimizations for High-performance Floating Gate Phototransistor Memory*", ACS Appl. Mater. Interfaces **147**, 53837 (2025).
- Y.-Y. Zhang, M.-Y. Lin, Y.-T. Tsai, M.-K. Leung*(梁文傑), and M.-H. Fang* (方牧懷), "*Sustainable Quantum Dot-vitrimer Composites: A Synergy of Quantum Dots and Dynamic Covalent Bonds*", ChemSusChem **18**, e202500464 (2025).
- B.-X. Zhong, L.-T. Chen, C.-Y. Lo, P.-Y. Chang, W.-T. Chuang*(莊偉綜), and C.-L. Wang*(王建隆), "*Designing Extrinsic Porosity in Supramolecular Organic Frameworks: Structural Control with Giant Tetrahedral Molecules*", J. Chin. Chem. Soc. **72**, 1119 (2025).

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- S.l N. Afraj, Y.-S. Shih, C.-H. Kuo, C.-H. Kuan, P.-Y. Huang, P.-Y. Lee, A. Velusamy, S.-H. Hong, C.-L. Liu, X. Jiang, M.-C. Chen*(陳銘洲), and E. W.-G. Diau*(刁維光), "*Harnessing Functionalized Thioalkylated-cyclopentadithiophene Monolayers on NiOx for Two-step Fabricated Tin Perovskite Solar Cells*", Small Methods **9**, e01309 (2025).
- D. D. Alemayehu, M.-C. Tsai*(蔡孟哲), M.-H. Tsai, C.-C. Yang, C.-C. Chang, C.-Y. Chang, E. A. Moges, K. Lakshmanan, Y. Nikodimos, W.-N. Su*(蘇威年), C.-H. Wang*(王嘉興), and B. J. Hwang*(黃炳照), "*Heterogeneous Interfaces of Ni_3Se_4 Nanoclusters Decorated on a Ni_3N Surface Enhance Efficient and Durable Hydrogen Evolution Reactions in Alkaline Electrolyte*", J. Am. Chem. Soc. **147**, 16047 (2025).
- F. T. Angerasa, E. A. Moges, C.-Y. Chang, K. Lakshmanan, T. A. Dessie, W.-H. Huang, H. G. Edao, W. B. Dilebo, C. B. Guta, C.-C. Chang, W.-S. Liao, J. Shen, N. G. Habtu*, M.-C. Tsai*(蔡孟哲), W.-N. Su*(蘇威年), and B. J. Hwang* (黃炳照), "*Selective Electrochemical Reduction of CO_2 to Ethanol on a Heteroatom-coordinated Dual-atom Catalyst of Fe/Cu-NC*", Chem. Mater. **37**, 2474 (2025).
- R. Balasaravanan, C.-H. Kuan, Y.-S. Shih, H.-L. Cheng, D. Ganesan, S.-H. Hong, C.-L. Liu, Y.-R. Zhong, X. Jiang, M.-C. Chen*(陳銘洲), and E. W.-G. Diau*(刁維光), "*Electron 'Push-push-pull' Type Dithienopyrrole-based Self-assembled Monolayers on NiOx for Enhanced Performance of Tin Perovskite Solar Cells*", Chem. Eng. J. **519**, 165231 (2025).
- B. Bazri, S. Singh, K. Dave, D.-H. Wei*(魏大華), and R.-S. Liu*(劉如熹), "*Surface Trait-dependent Photoreduction Products in $CsPbBr_3$, Embedded Cs_4PbBr_6 Structure*", Small **21**, 2501948 (2025).
- H.-W. Chang, T. Yang, C. Yan, P.-H. Chiu, C.-Y. Wu, H.-W. Yen, D. Bhalothia*, K.-W. Wang, P.-C. Chen*(陳柏均), and T.-Y. Chen*(陳燦耀), "*Oxidized Ti Single Atoms and Co_3O_4 with Abundant Oxygen Vacancies Collaborating with Adjacent Pd Sites for an Efficient and Stable Oxygen Reduction Reaction*", Adv. Sci. **12**, 2417789 (2025).
- B. D. Dandena, W.-N. Su*(蘇威年), D.-S. Tsai, Y. Nikodimos, B. W. Taklu, H. K. Bezabh, G. B. Desta, S.-C. Yang, K. Lakshmanan, H.-S. Sheu, C.-H. Wang, S.-H. Wu, and B. J. Hwang*(黃炳照), "*Li-Sb Alloy Formation Strategy to Improve Interfacial Stability of All-solid-state Lithium Batteries*", Small Methods **9**, 2400571 (2025).
- B. D. Dandena, L.-T. Wu, T.-I. Yeh, C.-Y. Chang, J.-C. Jiang, D.-S. Tsai, M. Ihrig, G. G. Serbessa, S.-C. Yang, K. Lakshmanan, H.-S. Sheu, C.-H. Wang, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Intrinsically-ductile Argyrodite Solid Electrolytes to Improve the Performance of All-solid-state Lithium Batteries*", Chem. Eng. J. **512**, 162450 (2025).
- A. T. Fenta, Y. Nikodimos, S. K. Merso, A. Meniber, M. A. Weret, K. N. Shitaw, B. W. Taklu, F. Valencia, T.-I. Yeh, C. L. Hsieh, C.-Y. Chang, Y.-J. Liu, C. Y. Chen, H.-H. Su, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Boosting Anode Interfacial Stability in All-solid-state Lithium Hybrid Batteries with MCMB-modified Stainless Steel Current Collector*", Chem. Eng. J. **510**, 161439 (2025).
- C. B. Guta, C.-Y. Chang, F. T. Angerasa, B. D. Bejena, H. G. Edao, W. B. Dilebo, E. A. Moges, M.-C. Tsai*(蔡孟哲), W.-N. Su*(蘇威年), and B. J. Hwang* (黃炳照), "*Decisive Electrocatalyst of Oxyphilic Transition Metals with Bivalent Metal Perovskites: Localized Oxygen Confinement for Enhanced 2e-WOR in H_2O_2 Production*", Chem. Eng. J. **524**, 169336 (2025).
- J.-W. Hsueh, L.-H. Kuo, P.-H. Chen, W.-H. Chen, C.-Y. Chuang, C.-N. Kuo, C.-S. Lue, H.-W. Shiu, B.-H. Liu, C.-H. Wang, Y.-J. Hsu, C.-L. Lin*(林俊良), J.-P. Chou*(周至品), and M.-F. Luo*(羅夢凡), "*Decomposition of Methanol Activated by Surface Under-coordinated Pd on Layered $PdTe_2$*", Phys. Chem. Chem. Phys. **27**, 9336 (2025).
- Y.-M. Hu*(胡裕民), N.-Y. Chen, P.-Y. Chuang*(莊霈于), C.-M. Lin, M.-S. Ho, P. H. Le, S.-C. Wu, C.-H. Chia, T.-C. Han, and S.-R. Jian*(簡勝瑞), "*Structure-property Correlation and Resistive Switching Mechanism of Amorphous and Partially Crystalline Ta_2O_5 Memristors Revealed by In-situ XPS and XAS*", Mater. Today Phys. **59**, 101924 (2025).
- J.-Y. Huang, K. Iputera, Y.-T. Lin, Y.-T. Hung, Y.-S. Liu, Y.-P. Chang, B. Bazri, B.-H. Liu, D.-H. Wei*(魏大華), B.-Y. Jin*(金必耀), and R.-S. Liu*(劉如熹), "*Exploring Dehydration Mechanisms and Conductivity Optimization in $Li_3InCl_6.xH_2O$ via in Situ Synchrotron Techniques*", J. Mater. Chem. A **13**, 2895 (2025).
- Y.-B. Huang, Y.-K. Li, S. B. Patil, D.-Y. Wang, U.-S. Jeng, and Y.-H. Lai*(賴英煌), "*Plasmon-enhanced Electrochemical CO_2 Reduction on Dendritic Gold Nanostructures with High Selectivity and Turnover Frequency*", ACS Appl. Energy Mater. **8**, 10458 (2025).
- Y.-S. Jheng, L.-C. Lee, S.-H. Hong, C.-C. Hsu, Q.-B. Zheng, C.-H. Wang, U.-S. Jeng, S.-H. Tung, and C.-L. Liu*(劉振良), "*Sustainable and Recyclable Ionogels for Ionic Thermoelectric Supercapacitor Application*", J. Mater. Chem. A **13**, 10655 (2025).
- Y.-S. Jheng, C.-C. Hsu, S.-H. Hong, C.-W. Hsu, S.-W. Kuo, C.-H. Wang, U.-S. Jeng, S.-H. Tung, and C.-L. Liu*(劉振良), "*Impact of Halide Anions on Ionic Transport and Thermoelectric Properties of Polyvinyl Alcohol-based Eutectogel*", Mater. Today Energy **54**, 102105 (2025).
- S.-T. Kao, C.-C. Hsu, S.-H. Hong, U.-S. Jeng, C.-H. Wang, S.-H. Tung, and C.-L. Liu*(劉振良), "*Host-guest Complexation of α-cyclodextrin and Triiodide Ions for Enhanced Performance of Ionic Thermoelectric Capacitors*", Adv. Energy Mater. **15**, 2405502 (2025).
- L. T. Kitaba, Y. Nikodimos, S. K. Merso, B. W. Taklu, G. G. Serbessa, W. B. Dilebo, T.-I. Yeh, J. A. Iskandar, F. Valencia, C.-Y. Chang, C. L. Hsieh, S. D. Lin*(林昇佃), S.-H. Wu*(吳溪煌), W.-N. Su*(蘇威年), and B. J. Hwang* (黃炳照), "*Overcoming Chemo-mechanical Instability at Silicon-solid Electrolyte Interfaces in Solid-state Batteries*", ACS Appl. Mater. Interfaces **17**, 60411 (2025).
- R. R. Koli, I.-H. Tsai, Y.-B. Huang, C.-H. Wang, B.-H. Liu, R. Putikam, M. C. Lin, and E. W.-G. Diau*(刁維光), "*Development of Single Crystalline Al-doped*

ZnS Nanodiscs as Efficient Photocatalysts for H_2 Evolution Reaction", J. Mater. Chem. A **13**, 34615 (2025).
- C.-Y. Lee, C.-C. Hsu, C.-H. Wang, U.-S. Jeng, S.-H. Tung, C.-C. Hu, and C.-L. Liu*(劉振良), "*Exploring Pyrazine-based Organic Redox Couples for Enhanced Thermoelectric Performance in Wearable Energy Harvesters*", Small **21**, 2407622 (2025).
- J.-T. Lin, Y.-C. Hsiao, C. Li, C.-Y. Tseng, Z.-Y. He, A. M. Gardner, Y. Chen, C.-C. Yang, C.-H. Wang, S.-C. Lin, X.-X. Lin, C.-Y. Lin, K.-H. Lin, A. J. Cowan*, and T.-H. Yang*(楊東翰), "*Spectroscopic and Theoretical Insights Into High-entropy-alloy Surfaces and Their Interfaces with Semiconductors for Enhanced Photocatalytic Hydrogen Production*", Small **21**, 2503512 (2025).
- L.-C. Lee, S.-H. Hong, M.-S. Kim, U.-S. Jeng, C.-H. Wang, S.-H. Tung, K. H. Lee, and C.-L. Liu*(劉振良), "*Enhanced Thermoelectric Performance of PVA-based Ionogels: Tailoring Crystallinity via Additives for Advanced Waste Heat Recovery*", ACS Appl. Mater. Interfaces **17**, 38545 (2025).
- Y. Nikodimos*, B. W. Taklu, C.-Y. Chang, K. N. Shitaw, T. M. Hagos, Z. B. Muche, S. K. Chaudhary, G. G. Serbessa, T.-I. Yeh, S. K. Merso, S. A. Ahmed, J.-M. Ke, E. A. Moges, S.-C. Yang, S.-H. Wu, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Unveiling the Chemical Stability and Solvent Compatibility of Halide Solid-state Electrolytes: Insights from Isothermal Calorimetric Titration and Synchrotron Spectroscopy*", Chem. Mater. **37**, 7622 (2025).
- G. G. Serbessa, Y. Nikodimos, B. W. Taklu, S. K. Merso, Z. B. Muche, B. D. Dandena, S. A. Vallal, T.-I. Yeh, F. Valencia, Y.-F. Hung, J.-H. Hsu, C.-M. Lee, S.-H. Wu*(吳溪煌), W.-N. Su*(蘇威年), C.-C. Yang*(楊純誠), and B. J. Hwang*(黃炳照), "*Stabilizing the Interface Between Li_6PS_5Cl Argyrodite Sulfide Solid Electrolyte and Li via In Situ Formed LiF-Li_3Bi Lithiophobic-lithiophilic Bifunctional Layer*", Energ. Environ. Mater. **76**, 104103 (2025).
- P. Srivastava, B. Bazri, D. K. Maurya, Y.-T. Hung, D.-H. Wei*(魏大華), and R.-S. Liu*(劉如熹), "*Green Strategy for Li_2CO_3 Regulation in Garnet-type Solid-state Electrolytes via Acoustic Cavitation*", ACS Energ. Lett. **10**, 10725 (2025).
- N. Thanasuwannakul, C.-C. Yang, P. Prapamonton, C.-H. Wang*(王嘉興), N. N. T. Pham*, and Y.-H. Chang*(張裕煦), "*Insight into the Oxygen Evolution Reaction Mechanism Catalyzed by Phosphate-substituted $FeCo_2O_4$ Nanosheets: Proton-coupled Electron Transfer Assisted Adsorbate Evolution Mechanism Investigated by in Situ NAP-XPS*", J. Mater. Chem. A **13**, 29900 (2025).
- D. S. Tomar, R. S. Chen, and S. Chattopadhyay*(薛特), "*Photogating-enhanced Photodetection in Substrate-assisted Borophene-graphene Hybrids*", Nanoscale **17**, 19363 (2025).
- D. S. Tomar, V. Sridhar, R. S. Chen, C.-T. Wu, and S. Chattopadhyay*(薛特), "*Record Photoresponsivity in Hydrogenated Borophene Broadband Photodetector*", ACS Photonics **12**, 6091 (2025).
- C.-E. Tsai, Y.-T. Wang, and Y.-H. Lai*(賴英煌), "*Surface-Engineered Ir/Au Aendritic Catalysts with Minimal Iridium Loading for Efficient Alkaline Oxygen Evolution*", Mater. Adv. **6**, 5677 (2025).
- S.-Y. Tsai, W.-T. Tseng, J.-H. Su, Y.-H. Wang, Y.-W. Chang, C.-H. Wang, U.-S. Jeng, K.-Y. Wu*(吳冠毅), C.-L. Wang*(王建隆), and W.-T. Chuang*(莊偉綜), "*Optimal st-PMMA/C_{60} Helical Inclusion Complexes via Tunable Energy Landscapes for the Application of an Ag SERS-active Substrate*", J. Appl. Crystallogr. **58**, 553 (2025).
- A. Velusamy, C.-H. Kuan, T.-C. Lin, Y.-S. Shih, C.-L. Liu, D.-Y. Zeng, Y.-G. Li, Y.-H. Wang, X. Jiang, M.-C. Chen*(陳銘洲), and E. W-G. Diau*(刁維光), "*Bithiophene Imide-based Self-assembled Monolayers (SAMs) on NiOx for High-performance Tin Perovskite Solar Cells Fabricated Using a Two-step Approach*", ACS Appl. Mater. Interfaces **17**, 952 (2025).
- M.-C. Wu*(吳明忠), K.-C. Hsiao, C. Fu, T.-H. Lin, Y.-H. Chang, Y.-C. -C., M.-P. Nieh, W.-F. Su, and M. Li*(李明達), "*Giant, Non-perturbative Tuning of Light-matter Interaction of Embedded Quantum Dots in Semiconducting Matrices*", Adv. Compos. Hybrid Mater. **8**, 281 (2025).
- M.-C. Wu*(吳明忠), Y.-H. Chang, T.-H. Lin, C.-Y. Wu, J.-M. Chang, and Y.-J. Lu*(盧郁仁), "*Enhanced Photothermal Therapy for Tumor Ablation: Structural and Functional Insights into Bi_2Se_3 Nanosheets as Light-to-heat Cconverter*", Discover Nano **20**, 106 (2025).
- Y.-T. Yuan, T.-C. Guo, C.-Y. Wu, Y.-Q. Yeh, C.-T. Wu, S.-Y. Hsu, Z.-W. Weng, M.-R. Ho, S.-T. D. Hsu, Y.-C. Chen, C.-R. Chang, K.-P. Wu*(吳昆峯), U.-S. Jeng*(鄭有舜), and S.-C. Sue*(蘇士哲), "*Filamentous Chemokine CCL5 Structure and the Functional Aspects*", Sci. Rep. **15**, 13552 (2025).
- L. Zhang, M. Li, C. Sun, H.-T. Wang, Y. Xiao, K. Ma, Y. Cai, C.-Y. Lee, Y.-C. Shao, C.-H. Wang, S. Zhao, H. Ishii, N. Hiraoka, X. Wang, C.-W. Pao, and L. Han*(韓麗麗), "*A Hydrazine-water Galvanic Cell-inspired Self-powered High-rate Hydrogen Production via Overall Hydrazine Electrosplitting*", Adv. Funct. Mater. **35**, 2420163 (2025).
- P. Zhao, Y. Huang, P. Li, N. Sharma, B. J. Murdoch, A. Rogers, C.-H. Wang, S. Sharma, Z. Wu, J. Chen, T. Sun, J. Lei, A. Kumar*, and N. Soin*, "*Why Not Inorganic Ferroelectrics: Harnessing the Pyroelectric Charges for Triboelectric Nanogenerators*", Nano Energy **141**, 111046 (2025).

SP 12B1 BM – Materials X-ray Study

- Y. Bai, Y. Wang, Y. Yang, C. Sun, H.-T. Wang, C.-F. Lee, C.-Y. Li, T. Zheng, K. Jiang*(蔣坤朋), and L. Han*(韓麗麗), "*Unveiling the Role of Heteroatom Doping and Strain in Core-shell Catalysts for CO_2RR*", Chem. Eng. J. **507**, 160155 (2025).
- H.-W. Chang, T. Yang, C. Yan, P.-H. Chiu, C.-Y. Wu, H.-W. Yen, D. Bhalothia*, K.-W. Wang, P.-C. Chen*(陳柏均), and T.-Y. Chen*(陳燦耀), "*Oxidized Ti Single Atoms and Co_3O_4 with Abundant Oxygen Vacancies Collaborating with Adjacent Pd Sites for an Efficient and Stable Oxygen Reduction Reaction*", Adv. Sci. **12**, 2417789 (2025).
- D. Chen, Y. Cai, Y. Xiao, C. Wang, Y. Li, K. Ma, D. Xiao, H.-T. Wang, C.-F. Lee, L. Zhang, H. Ishii, Y.-C. Shao, N. Hiraoka, L. Han*(韓麗麗), X. Liu*(劉學明), and H. L. Xin, "*Electrosynthesis of Urea on High-density Ga-Y Dual-atom Catalyst via Cross-tuning*", Adv. Mater. **37**, 2420593 (2025).
- H.-C. Chen*(陳劾謙), and A.-S. Kun, "*Unraveling the Role of Mo/Ni Synergy in β-$Ni(OH)_2$ for High-performance Urea Oxidation Catalysis*", J. Mater. Chem. A **13**, 27970 (2025).
- M. Chen, S. X. Tan, S. Cheng, Y.-Y. Chen, Y.-H. Hsu, S.-F. Hung, L. Zhang, and J. Gao*(高加儉), "*Revisiting the Ruthenium Oxide-based Water Oxidation Catalysts in Acidic Media: From Amorphous to Crystalline*", Nano Energy **137**, 110800 (2025).
- Z. Chen, Y. Xiao, X. Qiao, H. Ou*(歐鴻輝), C.-F. Lee, H.-T. Wang, Y.-C. Shao, and L. Han*(韓麗麗), "*Monitoring Chalcogenide Ions-guided in Situ Transform Active Sites of Tailored Bismuth Electrocatalysts for CO_2 Reduction to Formate*", P. Natl. Acad. Sci. USA **122**, e2420922122 (2025).
- P.-Y. Chuang*(莊霈于), J.-C.-A. Huang*(黃榮俊), A. A. Chainani*(查里), H.-S. Hsu, Y.-F. Liao, C.-Y. Sung, C.-H. Liu, C.-Y. Liao, C.-H. Lee, and K.-D. Tsuei, "*An 's-electron' Donor Band Driven Metallic Ferromagnetism in Co-doped ZnO Films*", Adv. Sci. **12**, e08148 (2025).
- S.-F. Dung, H. Cheshideh, P.-Y. Lee, K.-H. Tu, H.-M. Chen, K.-C. Ho, Y.-F. Wu*(吳永富), H.-C. Chen*(陳劾謙), and L.-Y. Lin*(林律吟), "*Enhanced Ni-Co Redox Dynamics in Dual-SDA Engineered ZIF-67 Derivatives for High-performance Supercapacitors: Insights from Operando X-ray Spectroscopy*", Compos. Pt. B-Eng. **304**, 112646 (2025).
- L. Fan, F. Li, T. Liu, J. E. Huang, R. K. Miao, Y. Yan, S. Feng, C.-W. Tai, S.-F. Hung, H.-J. Tsai, M.-C. Chen, Y. Bai, D. Kim, S. Park, P. Papangelakis, C. Wu, A. S. Zeraati, R. Dorakhan, L. Sun*, D. Sinton*, and E. Sargent*, "*Atomic-level Cu Active Sites Enable Energy-efficient CO_2 Electroreduction to Multicarbon Products in Strong Acid*", Nat. Synth. **4**, 262 (2025).
- Y.-P. Hsu, N.-S. Li, H.-H. Pang, Y.-C. Pan, H.-P. Tsai, H.-C. Chen, Y.-T. Chen, C.-H. Weng, S.-W. Kuo*(郭紹偉), and H.-W. Yang*(楊閎蔚), "*Lab-on-the-Needles: A Microneedle Patch-based Mobile Unit for Highly Sensitive Ex Vivo and In Vivo Detection of Protein Biomarkers*", ACS Nano **19**, 3249 (2025).
- T. A. Kumaravelu*, T. T. T. Nga, Y.-C. Shao, H. Ishii, J.-L. Chen, C.-L. Chen, C.-W. Pao, Y.-C. Huang, C.-H. Du, P.-H. Yeh, Y.-P. Chen, A. Kandasami, C.-H. Chen, W.-C. Chou, and C.-L. Dong*(董崇禮), "*Structural Symmetry and Regular Octahedral Atomic Coordination in Nanostructured $NiMoO_3$ for Supercapacitor Electrode Applications*", J. Power Sources **658**, 238245 (2025).
- Y. Li, X. Yu, Y. Fan, G. Zhang, S. Zhang, Z. Meng, Z. Qiu, Y.-C. Su, Y. Sun, N.-T. Suen, H.-C. Chen, R. Zhu, Y. Pi*(皮業燦), and H. Pang*(龐歡), "*Electrochemical Exfoliation of the Two-dimensional Conjugated Metal-organic Framework for High-performance Urea Electrooxidation*", ACS Nano **19**, 18781 (2025).
- C.-H. Liao, Y.-T. Weng, S.-K. Parthasarathi, H. Chen, S.-J. Chang, G.-Y. Liu, T.-Y. Yu, C.-W. Pao, T.-S. Chan, W.-T. Chuang, C.-C. Wang, R.-J. Jeng, and N.-L. Wu*(吳乃立), "*A Li-ion Permeable Poly(Phenylene Ether-ether-Sulfone) Interphase to Address Interfacial Instability and Structural Degradation of Ni-rich NCM Cathodes in Poly(Ethylene Oxide)-based All-solid-state Li-ion Batteries*", Chem. Eng. J. **523**, 168677 (2025).
- L.-J. Liaw, Z.-Q. Liu, M. Raheel, P.-W. Chen, S. Obinata, P.-C. Chang, P.-H. Hsu, Y.-Y. Hsu, T. Kimura, Y.-C. Shao*(邵禹成), and W.-C. Lin*(林文欽), "*Hydrogen Absorption-induced Rotation of Magnetic Anisotropy and Tunable Electrical Transport in FePd Alloy Thin Films*", J. Alloy. Compd. **1014**, 178748 (2025).
- Y.-H. Lin, K.-Y. Tong, S.-P. Chuang, M. Yılmaz, C.-Y. Chiang, and M.-J. Deng* (鄧名傑), "*3.3V Customizable, Recyclable, and Remanufacturable Flexible Symmetric Supercapacitors*", J. Alloy. Compd. **1016**, 179025 (2025).
- F. Liu, J. Zhou, M. Sun, Z. Xu, H. Wang, N. Yao, Y. Wang, F. Hao, Y. Xiong, J. Wang, L. Guo, Q. Wa, G. Wang, X. Meng, M. Shao, C. Wang, H.-C. Chen* (陳劾謙), H. M. Chen, Y. Zhu*(朱葉), B. Huang*(黃勃龍), and Z. Fan* (范戰西), "*Enhanced p-d Orbital Coupling in Unconventional Phase RhSb Alloy Nanoflowers for Efficient Ammonia Electrosynthesis in Neutral Media*", Angew. Chem. Int. Edit. **64**, e202504641 (2025).
- H.-W. Liu, H. Chen, S. Thi, P.-J. Yu, J.-L. Chen, C.-W. Pao, P.-Y. Chang, S.-C. Haw, Y.-F. Liao, Y.-C. Shao, G.-C. Yin, Y.-F. Song, S.-K. Parthasarathi, Y.-T.

Weng, and N.-L. Wu*(吳乃立), "*High-capacity Ni-rich Composite Cathodes Having Chemically Fused Interface with Li_3InCl_6 Electrolyte Towards Low-pressure Operating All-solid-state Li-ion Batteries*", Compos. Pt. B-Eng. **293**, 112133 (2025).

- W. Ma, J.-M. Vidal, J. Tian, M.-T. Liu, S. Jin, W. Ren, J. Taubmann, C. Chatzichristodoulou, J. Luterbacher, H. M. Chen, N. López, and X. Hu* (胡喜樂), "*Encapsulated Co-Ni Alloy Boosts High-temperature CO_2 Electroreduction*", Nature **641**, 1156 (2025).
- P. Mannu, R. K. Dharman, T. T. T. Nga, A. Mariappan, Y.-C. Shao, H. Ishii, Y.-C. Huang, A. Kandasami, T. H. Oh*, W.-C. Chou, C.-L. Chen, J.-L. Chen, and C.-L. Dong*(董崇禮), "*Tuning of Oxygen Vacancies in Co_3O_4 Electrocatalyst for Effectiveness in Urea Oxidation and Water Splitting*", Small **21**, 2403744 (2025).
- W. Pan, K. Okamoto, M. Utsumi, Y. Chen, M. Kitahara, H. Goto, H. Ishii, Y. Takabayashi, K. Hayashi, S. Araki, and Y. Kubozono*(久保園芳博), "*Superconducting Properties of the Noncentrosymmetric Superconductor LaPtSi Across a Broad Pressure Range*", J. Phys. Chem. C **129**, 12159 (2025).
- A. Serban, M.-T. Liu, N. Chen, H. M. Chen*(陳浩銘), and X. Hu*(胡喜樂), "*An Oxide-promoted, Self-supported Ni_4Mo Catalyst for High Current Density Anion Exchange Membrane Water Electrolysis*", Energ. Environ. Sci. **18**, 1533 (2025).
- M. Shinoda, K. Matsunoshita, M. Nakayama, S. Hiroi, K. Ohara, M. Abe, N. Ishiguro, Y. Takahashi, G. Hasegawa, N. Kuwata, T. Iwama, T. Masuda, K. Suzuki, H. Ishii, Y.-C. Shao, D. Shibata, A. Irizawa, T. Ohta, I. Konuma, T. Ohno, Y. Ugata, and N. Yabuuchi*(藪内直明), "*Activation of Anionic Redox for Stoichiometric and Li-excess Metal Sulfides through Structural Disordering: Joint Experimental and Theoretical Study*", J. Am. Chem. Soc. **147**, 26238 (2025).
- Y. Su, Y. Zhang, W. Feng, G. Zhang, Y. Sun, C. Yin, G. Yuan, Y. Tang, W. Zhou, H.-C. Chen, and H. Pang*(龐歡), "*Monocarboxylic Acid Structural Analogues Facilitate In Situ Composite of Functional Complexes for Aqueous Batteries*", Angew. Chem. Int. Edit. **64**, e202502752 (2025).
- G. Sun, D. Nie, Q. Zhu, L. Gao, Y.-H. Chang, H. Liu, J. Yang, Y. Ren, Y.-C. Shao, H. Ishii, X. Sui*(隋旭磊), P. Wang*(王攀攀), H.-T. Wang*(王孝祖), and Z. Wang*(王振波), "*Sn-mediated Local Atomic Ordering Enhances Reversible Anionic Redox Activity in Cation-disordered $Li_{1.3}Mn_{0.4}Nb_{0.3}O_2$ Cathodes*", Adv. Energy Mater. **15**, 2500217 (2025).
- G. Sun, H.-T. Wang*(王孝祖), C.-F. Lee, Q. Zhu, L. Gao, S.-H. Hsieh, Y.-C. Shao, H. Ishii, J. Zhou*(周霖罡), J. Wang*, and Z. Wang*(王振波), "*Visualization of Thermal-induced Degradation Pathways of High-Ni Cathode: a Comparative Study in Solid Chloride and Liquid Electrolytes*", Adv. Mater. **37**, e10392 (2025).
- J. Sun, Y.-A. Lai, J. Sun, Y. Du, B. J. Jolly, H. Sheng, T. Y. Lai, H. M. Chen, C. Costentin, M. Nava*, and C. Liu*, "*Automated Electroanalysis Accelerates the Discovery of Concerted Proton-electron Transfer*", J. Am. Chem. Soc. **147**, 28993 (2025).
- R. Sun, X. Cao*(曹興), J. Ma, H.-C. Chen, C. Chen, Q. Peng*(彭卿), and Y. Li*(李亞棟), "*Regulation of Pd Single-atom Coordination for Enhanced Photocatalytic Oxidation of Toluene to Benzaldehyde*", Nat. Synth. **4**, 965 (2025).
- N. A. T. Than, L. C. Hsu, Y.-H. Chen, K. Huangmee, C.-C. Wang, H. Y. Teah, Y.-M. Tzou, Y.-L. Cho*(卓宴琳), and Y.-T. Liu*(劉雨庭), "*Anaerobic Fe(II) Bio-oxidation by Cyanidiophyceae to Enhance As(III) Removal: A Novel and Efficient Biological Material Toward Resilient Remediation*", Chem. Eng. J. **523**, 168303 (2025).
- F.-Z. Tian, W.-J. Chang, P.-J. Liang, Y.-A. Lai, C.-S. Hsu, S.-C. Lin, Y.-H. Chen, Y.-C. Chu, S.-W. Huang*(黃詩雯), H.-L. Chen*(陳輝龍), and H. M. Chen*(陳浩銘), "*Charge Redistribution Dynamics in Chalcogenide-stabilized Cuprous Electrocatalysts Unleash Ampere-scale Partial Current Toward Formate Production*", Nat. Commun. **16**, 9426 (2025).
- C.-W. Tung, W. Zhang*(蔣偉), T. Y. Lai, J. Wang, Y.-C. Chu, G.-B. Wang, C.-S. Hsu, Y.-F. Liao, N. Hiraoka, H. Ishii, X. C. Zeng*(曾曉成), and H. M. Chen* (陳浩銘), "*Spin Crossover-driven Diiron Electrocatalyst Boosts Sustainable Water Oxidation*", Nat. Sustain. **8**, 793 (2025).
- J. Wang, M.-T. Liu, C.-S. Hsu, Y.-C. Chu, Y.-F. Liao, C.-W. Pao, T.-S. Chan, W.-T. Chuang, J.-L. Chen, Y.-C. Shao, H. Ishii, N. Hiraoka, C.-Y. Chiang*(蔣慶有), and H. M. Chen*(陳浩銘), "*Resolving Dynamic Behavior of Electrocatalysts via Advances of Operando X-ray Absorption Spectroscopies: Potential Artifacts and Practical Guidelines*", Adv. Mater. **37**, 2418797 (2025).
- L. Wang, S.-F. Hung, S. Zhao, Y. Wang, S. Bi, S. Li, J.-J. Ma, C. Zhang, Y. Zhang, L. Li*(李林林), T.-Y. Chen, H.-Y. Chen, F. Hu*(胡峰), Y. Wu, and S. Peng* (彭生杰), "*Modulating the Covalency of Ru-O Bonds by Dynamic Reconstruction for Efficient Acidic Oxygen Evolution*", Nat. Commun. **16**, 3502 (2025).
- Q. Wang, S.-F. Hung, K. Lao, X. Huang, F. Li, H. B. Tao*(陶華冰), H. B. Yang, W. Liu, W. Wang, Y. Cheng, N. Hiraoka, L. Zhang, J. Zhang, Y. Liu, J. Chen, Y. Xu, C. Su, J. G. Chen*(陳經廣), and B. Liu*(劉彬), "*Breaking the Linear Scaling Limit in Multi-electron-transfer Electrocatalysis Through Intermediate Spillover*", Nat. Catal. **8**, 378 (2025).
- H.-Y. Wu, H.-C. Liu*(劉厚均), L.-C. Kao, K.-E. Ching, C.-C. Chen, C.-F. You, T.-C. Yi, Y.-H. Chen, B.-L. Wu, and C.-J. Chen, "*Potential Geological Risks from Mud Diatremes in the Orogen Regime of Southwestern Taiwan*", Sci. Rep. **15**, 7666 (2025).
- Q. Wu, S. Ji, J. Chen, X.-Q. Tan, W.-J. Ong, R. Du, P. Wang, H. Wang, Y. Qiu, K. Yan, Y. Zhao, W.-W. Zhao*(趙偉偉), K.-S. Peng, Y.-Y. Chen, S.-F. Hung*(洪崧富), L. Zhou, X. Wang, G. Qiu*(邱光磊), and G. Chen*(陳光需), "*Realizing the Practical Application of CO_2 Electroreduction for Urban Wastewater Denitrification*", Nat. Water **3**, 1291 (2025).
- W.-Y. Wu, Y.-S. Lin, L. Iffland, U. Apfel, T.-T. Lu, and W.-F. Liaw*(廖文峰), "*Receptor-mediated and Hydrolytic Denitrosylation of Dinitrosyl Iron Complexes to Yield Amorphous Fe_xO_y and Its Photoinduced Transformation into Crystalline $Fe@Fe_xO_y$ Nanoparticles*", Inorg. Chem. **64**, 12708 (2025).
- P. L. Yadav, P. Joshi, V. C. Lokhande, C.-F. Lee, S.-H. Hsieh, H.-T. Wang, Y.-C. Shao, C.-W. Pao, C.-H. Chen, J. B. Yadav, M. P. Ghimire, N. G. Deshpande, and R. B. Patil*, "*Revisiting the Electronic Structure of α-MnO_2 for Energy Storage Application*", J. Phys. Chem. C **129**, 2619 (2025).
- H. Yamaoka*(山岡人志), H. Tanida, E. F. Schwier, Y. Yamamoto, S. Kumar, M. Arita, K. Shimada, F. Tajima, R. Onodera, T. Nishioka, H. Ishii, N. Hiraoka, and J. Mizuki*(水木純一郎), "*Itinerant to Localized Heavy Electron Magnetism in $Ce(Ru_{1-x}Rh_x)_2Al_{10}$: A Direction-dependent Phase Diagram beyond the Doniach Phase Diagram*", Phys. Rev. Lett. **135**, 266503 (2025).
- C. Yue, G. Sun, N. Liu, W. Bao, X. Zhang, F. Sun, H.-C. Chen, Y. Pan*(潘原), D. Sun, and Y. Lu*(盧玉坤), "*Lattice-Confined Pt-Ru Dual-atom Pair by Space Guard for Robust Hydrogen Evolution with Reversible Hydrogen Spillover*", Adv. Energy Mater. **15**, e02578 (2025).
- G. Zhang, W. Feng, G. Du, Y. Zhang, Y. Yang, D. Xu, T. Wang, H.-Y. Chen, H.-G. Xue, M. Shakouri, and H. Pang*(龐歡), "*Thermodynamically-driven Phase Engineering and Reconstruction Deduction of Medium-entropy Prussian Blue Analogue Nanocrystals*", Adv. Mater. **37**, 2503814 (2025).
- M. Zhang, Z. Fang, Z. Gao, Z. Pan, H. Min, H.-J. Chen, H.-Y. Chen, H. Yang* (楊浩), and J. Wang*(王瑾), "*Hollow Carbon Bowls with Cobalt Single-atom Sites Enable Fast and Reversible Potassium Storage*", J. Mater. Chem. A **13**, 27182 (2025).
- M. Zhang, X. Zhang, H. Li, H. Min, H.-J. Chen, H.-Y. Chen, H. Yang*(楊浩), and J. Wang*(王瑾), "*Asymmetrical Coordination of Cobalt Single-atom Catalyzed Interfacial Chemistry in Hard Carbon Anodes for Fast and Reversible Potassium Storage*", ChemSusChem **18**, e202500979 (2025).
- Z. Zhang, Z. Ren, C.-W. Hsu, W. Chen, Z.-W. Hong, C.-F. Lee, A. Penn, H. Xu, D. J. Zheng, S. Miao, Y. Huang, Y. Gao, W. Chen, H. Smith, Y. Niu, Y. Tian, Y.-R. Lu, Y.-C. Shao, S. Li, H.-T. Wang, I. I. Abate, P. Agrawal, Y. Shao-Horn, and J. Li*(李巨), "*A Multimodal Robotic Platform for Multi-element Electrocatalyst Discovery*", Nature **647**, 390 (2025).
- S. Zhao, S.-F. Hung, Y. Wang, S. Li, J. Yang, W.-J. Zeng, Y. Zhang, H.-H. Chang, H.-Y. Chen, F. Hu, L. Li, and S. Peng*(彭生杰), "*Dynamic Deprotonation Enhancement Triggered by Accelerated Electrochemical Delithiation Reconstruction during Acidic Water Oxidation*", J. Am. Chem. Soc. **147**, 7993 (2025).
- T. Zhao, J. Zhang, K. Wang, Y. Xiao*(肖遥), Q. Wang, L. Li, J. Tseng, M.-C. Chen, J.-J. Ma, Y.-R. Lu, I. Hirofumi, Y.-C. Shao, X. Zhao*(趙孝先), S.-F. Hung, Y. Su, X. Mu, and W. Hua*(滑緯博), "*Exploring the Mechanism of Surface Cationic Vacancy Induces High Activity of Metastable Lattice Oxygen in Li- and Mn-rich Cathode Materials*", Angew. Chem. Int. Edit. **64**, e202419664 (2025).
- J. Zhou, Z. Xu, K. Cui, J.-A. Yin, H.-C. Chen*(陳劾謙), Y. Wang, F. Liu, T. Wang*(王天帥), F. Hao, Y. Xiong, C. Wang, Y. Ma, P. Lu, J. Yin, L. Guo, X. Meng, C. Ye, H. M. Chen, Y. Zhu*(朱葉), J. Lu*(呂堅), and Z. Fan*(范戰西), "*Theory-guided Design of Unconventional Phase Metal Heteronanostructures for Higher-rate Stable Li-CO_2 and Li-air Batteries*", Angew. Chem. Int. Edit. **64**, e202416947 (2025).
- J. Zhou, F. Liu, Z. Xu, J.-A. Yin, L. Guo, F. Hao, Y. Wang, Y. Xiong, X. Zhou, C. Wang, Y. Ma, X. Meng, P. Lu, J. Yin, A. Zhang, J. Wang, C. Ye, Q. Li, C. Ling, H.-C. Chen*(陳劾謙), H. M. Chen, Y. Zhu*(朱葉), J. Lu*(呂堅), and Z. Fan* (范戰西), "*Modulating the Nitrate Reduction Pathway on Unconventional Phase Ultrathin Nanoalloys for Selective Ammonia Electrosynthesis*", J. Am. Chem. Soc. **147**, 23226 (2025).

SP 12U1 U32 – Inelastic X-ray Scattering

- N. Hiraoka*(平岡望), "*Cylindrically Bent Laue Analyzer in an X-ray Raman/ Emission Spectrometer: Performance Tests and a Comparison with Spherically Bent Bragg Analyzers*", J. Synchrotron Radiat. **32**, 109 (2025).
- D. Bhalothia, C. Yan, Y. Wu, J.-C. Kao, Y.-C. Lo, H. Li, N. Hiraoka, H. Ishii, Y.-F. Liao, S. Dai*(戴升), C.-H. Wang, A. Hu, J.-P. Chou, P.-C. Chen*(陳柏均),

and T.-Y. Chen*(陳燦耀), "*Local Collaboration Between Oxygen Vacancy, Palladium and Platinum Trimer Triggers Exceptional Performance in the Alkaline Fuel Cell*", Chem. Eng. J. **522**, 167605 (2025).

- D. Chen, Y. Cai, Y. Xiao, C. Wang, Y. Li, K. Ma, D. Xiao, H.-T. Wang, C.-F. Lee, L. Zhang, H. Ishii, Y.-C. Shao, N. Hiraoka, L. Han*(韓麗麗), X. Liu*(劉學明), and H. L. Xin, "*Electrosynthesis of Urea on High-density Ga-Y Dual-atom Catalyst via Cross-tuning*", Adv. Mater. **37**, 2420593 (2025).
- P.-Y. Chuang*(莊需于), J.-C.-A. Huang*(黃榮俊), A. A. Chainani*(查里), H.-S. Hsu, Y.-F. Liao, C.-Y. Sung, C.-H. Liu, C.-Y. Liao, C.-H. Lee, and K.-D. Tsuei, "*An 's-electron' Donor Band Driven Metallic Ferromagnetism in Co-doped ZnO Films*", Adv. Sci. **12**, e08148 (2025).
- K. Fujinuma, D. Takegami*(武上大介), A. Melendez-Sans, M. Yoshimura, K.-D. Tsuei, R. Higashinaka, T. D. Matsuda, Y. Aoki, M. Hedo, Y. Onuki, L. H. Tjeng, and T. Mizokawa, "*Effect of S 3p and Se 4p Holes on Charge Fluctuations in Pyrite-type CuS_2 and $CuSe_2$ Revealed by Hard X-ray Photoemission Spectroscopy*", Phys. Rev. B **111**, 115147 (2025).
- C.-Y. Huang, H.-A. Chen, W.-X. Lin, K.-H. Chen, Y.-C. Lin, T.-S. Wu, C.-C. Chang, C.-W. Pao, W.-T. Chuang, J.-C. Jan, Y.-C. Shao, N. Hiraoka, J.-W. Chiou, P.-C. Kuo, J. Shiue, D. Vishnu S. K, R. Sankar, Z.-W. Cyue, W.-F. Pong*(彭維鋒), and C.-W. Chen*(陳俊維), "*In Situ Identification of Spin Magnetic Effect on Oxygen Evolution Reaction Unveiled by X-ray Emission Spectroscopy*", J. Am. Chem. Soc. **147**, 13286 (2025).
- Y. Li, J. Zhao, S. Zhang, Y. Fan, C.-Y. Kuo, Y.-C. Ku, T.-S. Chan, C.-W. Kao, Y.-C. Huang, C.-T. Chen, S.-C. Haw, C. Jin, H. Zhao, D. Ye*(葉代新), C. Jing*(靜超), Z. Hu*(胡志偉), and L. Zhang*(張林娟), "*Hexavalent Ru Catalyst with Both Lattice Oxygen and Metal Ion Mechanisms Coactive for Water Oxidation*", J. Am. Chem. Soc. **147**, 26854 (2025).
- L.-M. Lyu, Y.-C. Chang, H.-J. Li, P.-E. Wang, R.-H. Juang, M.-Y. Lu, C.-S. Li, and C.-H. Kuo*(郭俊宏), "*Turning the Surface Electronic Effect Over Core-shell CoS_2-$Fe_xCo_{1-x}S_2$ Nanooctahedra Toward Electrochemical Water Splitting in the Alkaline Medium*", Adv. Sci. **12**, 2411622 (2025).
- M. Oudah*, D. Takegami, S. Kitao, J. L. Lado, A. Meléndez-Sans, D. S. Christovam, M. Yoshimura, K.-D. Tsuei, G. McNally, M. Isobe, K. Küster, M. Seto, B. Keimer, D. A. Bonn, L. H. Tjeng, G. Sawatzky, and H. Takagi, "*Charge-entropy-stabilized Selenide $Ag_xSn_{1-x}Se$*", Commun. Mater. **6**, 58 (2025).
- M. Sato, K. Awaya, M. Tsushida, M. Machida, N. Hiraoka, and J. Ohyama*(大山順也), "*Rh K-edge High-energy-resolution Fluorescence-detected X-ray Absorption Near-edge Structure Spectroscopy Reveals Deactivated $RhAlO_x$ Structure in Aged Rh/γ-Al_2O_3 Catalyst*", ACS Catalysis **15**, 6466 (2025).
- A. R. Shelke, C. N. Kuo, S. K. Pandey, T. L. Nguyen, Y. X. Chen, Y. T. Cheng, F. H. Chang, M. Yoshimura, N. Hiraoka, T. W. Pi, H. J. Lin, C. T. Chen, A. Fujimori, P. Mahadevan, C. S. Lue, and A. Chainani*(查里), "*Electron Spectroscopy Study of Single-crystal CrTe*", Phys. Rev. B **111**, 085142 (2025).
- S. V. Streltsov*, D. Takegami, R. Nakamura, P. P. Kovaleva, A. I. Poteryaev, S. A. Nikolaev, H.-H. Xu, Y. Sui, M. Yoshimura, K.-D. Tsuei, N. L. Saini, D. I. Khomskii, and T. Mizokawa*(溝川貴司), "*Beyond a Cluster-Mott State in the Breathing Kagome Lattice of $LiZn_2Mo_3O_8$*", Phys. Rev. B **111**, 085124 (2025).
- Y.-C. Su, S.-J. Chang, D. M. Sathaiya, C.-F. Hsu, B.-H. Liu, C.-Y. Su, C.-C. Kei, Y.-F. Liao, S.-C. Haw, C.-W. Hu, S.-L. Liew, V. D.-H. Hou, T.-Y. Lee, C.-C. Cheng, T.-E. Lee*(李宗恩), and I. P. Radu, "*Conformal Atomic Layer Deposition of Gate Dielectrics on Monolayer MoS_2 for Gate-all-around Transistors*", IEEE T. Electron Dev. **72**, 7122 (2025).
- D. Takegami, T. Okauchi, E. A. Morales, K. Fujinuma, M. Furo, M. Yoshimura, K.-D. Tsuei, G. A. Pan, D. F. Segedin, Q. Song, H. Paik, C. M. Brooks, J. A. Mundy, T. Mizokawa, L. H. Tjeng, B. H. Goodge*, and A. Hariki*(播木敦), "*Valence, Charge Transfer, and Orbital-dependent Correlation in Bilayer Nickelates $Nd_3Ni_2O_7$*", Phys. Rev. B **111**, 165101 (2025).
- D. Takegami*(武上大介), S. Kitou, Y. Tokunaga, M. Yoshimura, K.-D. Tsuei, T.-H. Arima, and T. Mizokawa, "*Experimental Determination of Tetramer Molecular Orbital States in Lacunar Spinel $GaNb_4Se_8$ via Hard X-ray Photoemission Spectroscopy*", Phys. Rev. B **111**, 195155 (2025).
- C.-Y. Teng, C.-W. Hsu, C.-H. Chang, J.-L. Yang, B.-H. Lin, M.-T. Tang, and Y.-C. Tseng*(曾院介), "*Oxygen Migration Impact on Ferroelectric Evolution in $Hf_{0.5}Zr_{0.5}O_2$ Devices*", Appl. Phys. Lett. **126**, 193502 (2025).
- C.-H. Tso, C.-H. Hsu, J. Wang, P.-Y. Lin, H.-T. Lin, N. Hiraoka, M.-K. Tsai*(蔡明剛), C.-H. Chen*(陳志欣), and H. M. Chen*(陳浩銘), "*Medium Spin Fe^{III} Regulating the Peroxide Selectivity in the Heterogeneous Oxygen Reduction Reaction of Spin-polarized Fe-TAML Complexes*", Mater. Horizons **12**, 9808 (2025).
- C.-W. Tung, W. Zhang*(蔣偉), T. Y. Lai, J. Wang, Y.-C. Chu, G.-B. Wang, C.-S. Hsu, Y.-F. Liao, N. Hiraoka, H. Ishii, X. C. Zeng*(曾曉成), and H. M. Chen*(陳浩銘), "*Spin Crossover-driven Diiron Electrocatalyst Boosts Sustainable Water Oxidation*", Nat. Sustain. **8**, 793 (2025).
- Q. Wang, S.-F. Hung, K. Lao, X. Huang, F. Li, H. B. Tao*(陶華冰), H. B. Yang, W. Liu, W. Wang, Y. Cheng, N. Hiraoka, L. Zhang, J. Zhang, Y. Liu, J. Chen, Y. Xu, C. Su, J. G. Chen*(陳經廣), and B. Liu*(劉彬), "*Breaking the Linear Scaling Limit in Multi-electron-transfer Electrocatalysis Through Intermediate Spillover*", Nat. Catal. **8**, 378 (2025).
- H. Yamaoka*(山岡人志), P. Thunström, N. Tsujii, M. Arita, E. F. Schwier, K. Shimada, H. Ishii, and N. Hiraoka, "*Electronic Structures of Yb_3Si_5 and Yb_3Ge_5 Studied by X-ray Absorption Spectroscopy, Resonant X-ray Emission Spectroscopy, Photoelectron Spectroscopy, and LDA+DMFT Calculations*", J. Phys. Soc. JPN. **94**, 074709 (2025).
- H. Yamaoka*(山岡人志), H. Tanida, E. F. Schwier, Y. Yamamoto, S. Kumar, M. Arita, K. Shimada, F. Tajima, R. Onodera, T. Nishioka, H. Ishii, N. Hiraoka, and J. Mizuki*(水木純一郎), "*Itinerant to Localized Heavy Electron Magnetism in $Ce(Ru_{1-x}Rh_x)_2Al_{10}$: A Direction-dependent Phase Diagram beyond the Doniach Phase Diagram*", Phys. Rev. Lett. **135**, 266503 (2025).
- J. Zhang, X. Ye, X. Wang, Z. Pan, M. Pi, S. Tang, C. Dong, C.-T. Chen, J.-M. Chen, C.-Y. Kuo, Z. Hu, X. Shen*(沈希), X. Yu, Y. Shen, R. Yu, and Y. Long*(龍有文), "*Realization of Intrinsic Colossal Magnetoresistance in $Pb(Pb_{1/3}Hg_{2/3})_3Mn_4O_{12}$: An A Site-ordered Quadruple Perovskite Oxide*", J. Am. Chem. Soc. **147**, 12644 (2025).
- L. Zhang, M. Li, C. Sun, H.-T. Wang, Y. Xiao, K. Ma, Y. Cai, C.-Y. Lee, Y.-C. Shao, C.-H. Wang, S. Zhao, H. Ishii, N. Hiraoka, X. Wang, C.-W. Pao, and L. Han*(韓麗麗), "*A Hydrazine-water Galvanic Cell-inspired Self-powered High-rate Hydrogen Production via Overall Hydrazine Electrosplitting*", Adv. Funct. Mater. **35**, 2420163 (2025).
- L. Zhang, Y. Cai, Y. Li, C. Sun, Y. Xiao, Y. Yang, D. Chen, D. Xiao, C.-F. Lee, Y. Wang, S. Feng, H.-T. Wang, Y.-C. Shao, T.-S. Chan, H. Ishii, N. Hiraoka, X. Wang, J. Luo, and L. Han*(韓麗麗), "*Unlocking High-current-density Nitrate Reduction and Formaldehyde Oxidation Synergy for Scalable Ammonia Production and Fixation*", Energ. Environ. Sci. **18**, 2804 (2025).
- L. Zhou, H.-W. Tsai, T.-W. Kuo, J.-C. Kao, Y.-C. Lo, J.-M. Chang, T.-H. Chiang, S. Dai*(戴升), K.-W. Wang*(王冠文), and T.-Y. Chen*(陳燦耀), "*Atomic Layered ZnO Between Cu Nanoparticles and a PVP Polymer Layer Enable Exceptional Selectivity and Stability in Electrocatalytic CO_2 Reduction to C_2H_4*", Adv. Sci. **12**, 2501642 (2025).

SP 44XU U32 – Macromolecular Assemblies (International Collaboration)

- C. Beagbandee, R. Charoenwattanasatien, S. Pengthaisong*, G. Kurisu, and J. R. K. Cairns*, "*The Structure of Thermosynechococcus Elongatus Glycoside Hydrolase Family 116 β-glucosidase Shows the Role of the Noncatalytic N-terminal Domain in Controlling Substrate Specificity*", Int. J. Biol. Macromol. **332**, 148566 (2025).
- P. Laohawutthichai, S.-Y. Kim, M. F. Chek, T. Jatuyosporn, A. Tassanakajon, K. Krusong*, and T. Hakoshima*(箱嶋敏雄), "*Structure of the C-terminal of Viral Responsive Protein 15 (VRP15): A Key Protein During White Spot Syndrome Virus (WSSV) Infection*", J. Mol. Biol. **437**, 169329 (2025).
- S.-W. Lin, T.-P. Ko, H.-Y. Chiang, C.-G. Wu, M.-F. Hsu, A. H.-J. Wang*(王惠鈞), and C.-H. Lin*(林俊宏), "*Structural Insight into the Catalytic Mechanism of the Bifunctional Enzyme L-fucokinase/GDP-fucose Pyrophosphorylase*", J. Biol. Chem. **301**, 108344 (2025).
- Y.-H. Peng, M.-C. Li, W.-C. Yen, T.-K. Yeh, C.-C. Hsueh, F.-M. Kuo, Y.-L. Lai, Ling Chang, L.-C. Lee, P.-Y. Chen, K.-J. Yen, T.-Y. Chang, H.-Y. Sun, C.-Y. Chang, S.-H. Hsieh, C.-M. Yang, H.-P. Hsieh*(謝興邦), and S.-Y. Wu*(伍素瑩), "*Structure-based Design of Potent and Selective MerTK Inhibitors by Modulating the Conformation of αC Helix*", J. Med. Chem. **68**, 10877 (2025).

Beamline/Endstation Instrumentation

- C. F. Chang*(張家峯) and C. Y. Liu, "*Detector Protection System Used in the Taiwan Photon Source 13A Experimental Station*", International Particle Accelerator Conference (IPAC), 3043 Taipei,Taiwan (2025).
- C. F. Chang*(張家峯) and C. Y. Liu, "*Intelligent Motor Driver Monitoring and Alarm System for Taiwan Photon Source*", International Particle Accelerator Conference (IPAC), 3046 Taipei,Taiwan (2025).
- Y.-H. Cheng, H.-A. Liu, C.-Y. Chang, K.-L. Yu, Y.-F. Liao, and C.-S. Hsu*(許家碩), "*High-energy-resolution Spectroscopy at Taiwan Photon Source: Design of Beamline 47A for Photon-in/Photon-out Spectroscopy*", Synchrotron Rad. News **38**, 13 (2025).
- C.-K. Chou, C.-C. Tseng, C.-H. Chiang, Y.-H. Chen, Y.-C. Liu, C.-Y. Huang, C.-H. Chao, and C.-H. Huang*(黃駿翔), "*The Current Status and Future Prospects of the Synchrotron Radiation Protein Crystallography Core Facility at NSRRC: a Focus on the TPS 05A, TPS 07A and TLS 15A1 Beamlines*", J. Synchrotron Radiat. **32**, 457 (2025).
- C. W. Hsu*(徐禎婉), H. S. Fung, and C. S. Lee, "*Development of Residual Gas Analyzer Measurement System Capable of Operating in the 10 Torr Vacuum Range*", International Particle Accelerator Conference (IPAC), 2507 Taipei,Taiwan (2025).

- C.-W. Hsu*(徐禎婉), T.-P. Huang, Y.-Y. Lee, and L.-J. Huang, "*Efficient Carbon Cleaning of Soft X-ray Optical Elements at NSRRC*", J. Phys.-Conf. Ser. **3010**, 012080 (2025).
- M.-Y. Hsu*(徐名瑩), H.-S. Fung, S.-W. Lin, H.-W. Fu, G.-C. Yin, and Y.-S. Huang, "*The TPS Soft X-ray Bendable Mirror Clip Design and Slope Error Analysis*", Rev. Sci. Instrum. **96**, 081302 (2025).
- C.-C. Liang*(梁成志), J.-L. Tu, M.-H. Lee, H.-W. Chen, L.-C. Chiang, C.-S. Lee, C. Chan, C.-F. Chang, C.-Y. Chang, K.-L. Yu, D.-G. Liu, Y.-C. Huang, P.-Y. Peng, Y.-J. Lu, and C.-L. Chen, "*Data Acquisition Software for the Tender X-ray Absorption Spectroscopy Beamline at the Taiwan Photon Source*", J. Phys.-Conf. Ser. **3010**, 012121 (2025).
- S.-W. Lin*(林上為), C.-C. Chiu, M.-Y. Hsu, C.-F. Chang, B.-Y. Chen, and G.-C. Yin, "*Development of an In-vacuum Long Trace Profiler for In Situ Measurement of Optical Components*", Rev. Sci. Instrum. **96**, 091301 (2025).

Accelerator Facility

- C. S. Huang*(黃春憲), Y. C. Liu, Y. T. Cheng, H. S. Wang, W. Y. Lai, T. C. Tseng, and C. K. Kuan, "*The Online Emittance at Taiwan Photon Source*", International Particle Accelerator Conference (IPAC), 2839 Taipei, Taiwan (2025).
- C. H. Chang*(張正星), C. K. Yang, J. C. Jan, F. Y. Lin, T. Y. Chung, and J. C. Huang, "*Design and Construction of a Permanent Magnet Quadrupole at NSRRC*", International Particle Accelerator Conference (IPAC), 2606 Taipei, Taiwan (2025).
- C.-C. Chang*(張進春), C.-K. Chan, B.-Y. Chen, C.-S. Huang, C.-K. Yang, F.-Y. Lin, C.-S. Fann, K.-K. Lin, and J.-H. Kang, "*Development of the Nonlinear In-vacuum Kicker at Taiwan Photon Source*", Vacuum **239**, 114356 (2025).
- C.-C. Chang*(張進春), B.-Y. Chen, and C.-K. Chan, "*Evaluation of Coating Thickness and Thermal Deposited Power for Nonlinear In-vacuum Kicker*", International Particle Accelerator Conference (IPAC), 173 Taipei, Taiwan (2025).
- J. C. Chang*(張瑞麒) W. S. Chan, "*Numerical Simulation of a Modified Air Conditioning System of the Experimental Hall at TPS*", International Particle Accelerator Conference (IPAC), 2552 Taipei, Taiwan (2025).
- J. C. Chang*(張瑞麒) C. H. Kuo, "*Network System Upgrade and Information Security Management System Implementation at NSRRC*", International Particle Accelerator Conference (IPAC), 2555 Taipei, Taiwan (2025).
- S. W. Chang*(張鮮文), F. Y. Chang, Y. T. Li, F. T Chung, C. H. Huang, M. S. Yeh, L. J. Chen, Z. K. Liu, M. H. Chang, C. H. Lo, M. C. Lin, and C. Wang, "*Development of a Water Cooling System for Solid-state Power Amplifiers at NSRRC*", International Particle Accelerator Conference (IPAC), 1106 Taipei, Taiwan (2025).
- S. W. Chang, F. Y. Chang*(張朝毓), C.-H. Huang, Z. K. Liu, M. S. Yeh, C. H. Lo, F. T Chung, L. J. Chen, M. H. Chang, M. C. Lin, Y. T. Li, and C. Wang, "*The Cavity Combiner Development for TPS SSPA Tower at NSRRC*", International Particle Accelerator Conference (IPAC), 1912 Taipei, Taiwan (2025).
- C. L. Chen*(陳慶隆), K. L. Tsai, and C. S. Fann, "*Development of a Step Motor System for TPS Linac RF System*", International Particle Accelerator Conference (IPAC), 520 Taipei, Taiwan (2025).
- C. W. Chen*(陳智偉), C. S. Yang, H. Chen, F. Y. Lin, C. K. Yang, and J. C. Huang, "*Design and Development a Measurement System for Magnetic Tuning of Undulator Magnets*", International Particle Accelerator Conference (IPAC), 1861 Taipei, Taiwan (2025).
- H. Chen*(陳雄), C. K. Yang, J. C. Huang, and C. W. Chen, "*The Wire Alignment Method in a Magnetic Field Measurement System*", International Particle Accelerator Conference (IPAC), 2526 Taipei, Taiwan (2025).
- C. M. Cheng*(鄭家沐), Y. T. Cheng, Y. M. Hsiao, B. Y. Chen, C. Shueh, Y. C. Yang, and C. K. Chan, "*The Issue with XBPM2 in the TPS Front End*", International Particle Accelerator Conference (IPAC), 2842 Taipei, Taiwan (2025).
- Y. S. Cheng*(鄭永森), K. T. Hsu, S. H. Lee, J. K. Liao, C. Y. Liao, and C. Y. Wu, "*Applications of Waveform Digitizers at the TPS and TLS Control Systems*", International Particle Accelerator Conference (IPAC), 2829 Taipei, Taiwan (2025).
- M. S. Chiu*(邱茂森), N. Y. Huang, H. W. Luo, F. H. Tseng, and P. J. Chou, "*EPU Coupling Correction by Bayesian Optimization in TPS*", International Particle Accelerator Conference (IPAC), 1311 Taipei, Taiwan (2025).
- M. S. Chiu*(邱茂森), N. Y. Huang, H. W. Luo, F. H. Tseng, and P. J. Chou, "*Online Optimization of Beam Lifetime by Bayesian Optimization in TPS*", International Particle Accelerator Conference (IPAC), 2032 Taipei, Taiwan (2025).
- M. S. Chiu*(邱茂森), H. P. Chang, H. J. Tsai, P. J. Chou, Y. S. Wong, J. C. Jan, Z. K. Liu, and C. Wang, "*Energy Ramping Simulation for TPS Booster Ring*", International Particle Accelerator Conference (IPAC), 2036 Taipei, Taiwan (2025).
- P. C. Chiu*(邱斐珍), C. H. Huang, C. Y. Wu, K. T. Hsu, and K. H. Hu, "*The Efforts on Beam Stability Improvement in TPS*", International Particle Accelerator Conference (IPAC), 2845 Taipei, Taiwan (2025).
- Y. F. Chiu*(邱永豐), Y. C. Lin, M. T. Lee, Y. H. Zhuang, and W. S. Chan, "*Power Quality Measurement and Analysis for Grid-connected Rooftop Photovoltaic Systems at NSRRC*", International Particle Accelerator Conference (IPAC), 2558 Taipei, Taiwan (2025).
- M.-C. Chou*(周明昌), A.-P. Lee, W.-Y. Chiang, C.-M. Tu, and W.-K. Lau, "*Feasibility Study of a THz Beamline Design for the THz User Facility at NSRRC*", International Particle Accelerator Conference (IPAC), 1243 Taipei, Taiwan (2025).
- P. J. Chou*(周炳榮), C. C. Chang, C. K. Chan, K. T. Hsu, K. H. Hu, J. C. Huang, C. Y. Liao, M. C. Lin, Z. K. Liu, I. C. Sheng, H. J. Tsai, and M. S. Yeh, "*The Operational Challenges: Achieving 500 mA High Beam Current at Taiwan Photon Source*", International Particle Accelerator Conference (IPAC), 1 Taipei, Taiwan (2025).
- F.-T. Chung*(鍾福財), C.-H. Huang, M.-S. Yeh, Z.-K. Liu, L.-J. Chen, Y.-T. Li, S.-W. Chang, M.-H. Chang,, M.-C. Lin, Chaoen Wang, and F.-Y. Chang, "*Development of a Break Out Box System for the 1.5 GHz SRF Harmonic Cavity at NSRRC*", International Particle Accelerator Conference (IPAC), 2591 Taipei, Taiwan (2025).
- C. S. Fann*(范祺翔), C. C. Chang, C. K. Chan, C. L. Chen, K. L. Tsai, M. S. Chiu, and K. K. Lin, "*An IGBT Pulser for the Nonlinear Injection Kicker at Taiwan Photon Source*", International Particle Accelerator Conference (IPAC), 72 Taipei, Taiwan (2025).
- F.-Z. Hsiao*(蕭豐祁), P.-S. Chuang, H.-C. Li, H.-H. Tsai, W.-R. Liao, S.-H. Chang, and W.-S. Chiou, "*Enhancement of Moisture Removal to the Helium Cryogenic Plant for Taiwan Photon Source*", J. Instrum. **20**, P05030 (2025).
- Y. M. Hsiao*(蕭元銘), C. M. Cheng, Y. H. Guo, C. Shueh, Y. T. Cheng, C. K. Chan, C. C. Chang, C. K. Kuan, and I. C. Sheng, "*Architecture Reconstruction and Optimization of Front-end Interlock System in TPS*", International Particle Accelerator Conference (IPAC), 2623 Taipei, Taiwan (2025).
- Y. T. Hsieh*(謝譯瑭), H. J. Tsai, W. Y. Lin, S. J. Huang, T. Y. Lee, H. C. Chen, H. H. Chen, B. Y. Huang, J. A. Li, H. A. Wang, and T. W. Hsu, "*Analysis of Low-frequency Disturbances (0.3 Hz) in TPS and TLS Beam Orbit Feedback Systems*", International Particle Accelerator Conference (IPAC), 1102 Taipei, Taiwan (2025).
- G.-Y. Hsiung*(熊高鈺), C. Shueh, C.-M. Cheng, C.-K. Chan, and R. Valizadeh, "*Measurements of PSD and Photoelectrons on NEG Coated Vacuum Chambers Exposed to Synchrotron Radiation at the Taiwan Light Source Beamline*", Vacuum **234**, 114112 (2025).
- L. P. Hsu*(許林斌), C. Y. Liao, C. Y. Wu, J. K. Liao, Y. S. Cheng, and Z. Q. Wu, "*Applications of SNMP and SYSLOG Monitoring at the TPS Control System*", International Particle Accelerator Conference (IPAC), 2949 Taipei, Taiwan (2025).
- Y. Y. Hsu*(徐漾漾), J. C. Jan, Y. L. Chu, and F. Y. Lin, "*Integrating Permanent Magnets and Electromagnets: a Hybrid Dipole Magnet Design*", International Particle Accelerator Conference (IPAC), 1699 Taipei, Taiwan (2025).
- C. H. Huang*(黃朝暉), J. Qiang, W. K. Lau, S. Y. Teng, W. Y. Chiang, and S. H. Chen, "*Direct Interpretation of Coherent Synchrotron Radiation Modeling from Lienard-wiechert Equation with Shielding*", International Particle Accelerator Conference (IPAC), 2125 Taipei, Taiwan (2025).
- C. H. Huang*(黃至賢), K. T. Hsu, S.-H. Lee, J. K. Liao, K. H. Hu, P. C. Chiu, and C. Y. Wu, "*Synchronous Phase Measurement and Study at the Taiwan Photon Source*", International Particle Accelerator Conference (IPAC), 2835 Taipei, Taiwan (2025).
- C.-H. Huang*(黃朝暉), C. Wang, F.-T. Chung, L.-J. Chen, C.-H. Lo, S.-W. Chang, Y.-T. Li, Z.-K. Liu, M.-S. Yeh, M.-H. Chang, M.-C. Lin, and F.-Y. Chang, "*Transitional Solution of Solid-state Power Amplifier at NSRRC*", International Particle Accelerator Conference (IPAC), 1777 Taipei, Taiwan (2025).
- J.-C. Huang*(黃睿哲), H. Kitamura, P.-S. Chuang*(莊秉勳), H.-C. Li, C.-S. Yang, C.-Y. Wu, C.-Y. Liao, H.-H. Tsai, C.-W. Chen, W.-R. Liao, and C.-K. Yang, "*Cryogenic Permanent Magnet Undulator by Evaporative Cooling of Liquid Nitrogen*", Phys. Rev. Accel. Beams **28**, 093501 (2025).
- N. Y. Huang*(黃暖雅), D. Einfeld, M. S. Chiu, H. W. Luo, F. H. Tseng, and P. J. Chou, "*Exploring Lattice Candidates for TPS Upgrade*", International Particle Accelerator Conference (IPAC), 176 Taipei, Taiwan (2025).
- J. C. Jan*(詹哲鎧), C. C. Tsai, P. K. Wang, and F. Y. Lin, "*Magnetic Circuit Design and Consideration for HTSW Using 12 mm HTS Tape*", International Particle Accelerator Conference (IPAC), 1822 Taipei, Taiwan (2025).
- S. P. Kao*(高小萍), H. H. Tsai, and F. Z. Hsiao, "*Application of Hazop and Lopa in the Risk Assessment of TPS LHe System at the NSRRC*", International Particle Accelerator Conference (IPAC), 1098 Taipei, Taiwan (2025).

- C. H. Kuo*(郭長和), J. C. Chang, M. S. Yeh, and C. E. Wang, "*Status and Event Automatic Notification with Development with Mobile System at NSRRC*", International Particle Accelerator Conference (IPAC), 2946 Taipei, Taiwan (2025).
- T. Y. Lee*(李宗諭), T. W. Hsu, B. Y. Huang, C. Y. Hung, W. Y. Lin, C. H. Huang, and H. J. Tsai, "*Auxiliary Tools for TPS Operation*", International Particle Accelerator Conference (IPAC), 3030 Taipei, Taiwan (2025).
- Y. T. Li*(李易達), S. W. Chang, C. C. Huang, F. T Chung, M. S. Yeh, L. J. Chen, Z. K. Liu, M. H. Chang, C. H. Lo, M. C. Lin, C. Wang, and F.-Y. Chang, "*Design and Implementation of a Power Monitoring and Distribution System for the SSPA-based RF Transmitter at NSRRC*", International Particle Accelerator Conference (IPAC), 1775 Taipei, Taiwan (2025).
- J. K. Liao*(廖晉坤), S. H. Lee, Y. S. Cheng, C. H. Huang, and K. T. Hsu, "*Development of a new Clock Phase Shifter for Phase Measurement at the TPS*", International Particle Accelerator Conference (IPAC), 2832 Taipei, Taiwan (2025).
- M. C. Lin*(林明泉), C. T. Huang, F. Y. Chang, C. H. Lo, Z. K. Liu, Ch. Wang, M. S. Yeh, M. H. Chang, F. T. Chung, L. J. Chen, Y. T. Li, and S. W. Chang, "*Determination of Trapped Modes on a Two-cell 1.5-GHz Superconducting Radio-frequency Cavity*", IEEE T. Appl. Supercon. **35**, 3500905 (2025).
- S. Y. Lin, J. C. Liu, and A. Y Chen*(陳昂佑), "*Passive Radiation Detection Using TLD in NSRRC*", International Particle Accelerator Conference (IPAC), 3010 Taipei, Taiwan (2025).
- S.-Y. Lin and Y.-H. Lin*(林易弘), "*Development of a Comprehensive Biosafety Management System for External User Experiments at NSRRC*", International Particle Accelerator Conference (IPAC), 1056 Taipei, Taiwan (2025).
- W. Y. Lin*(林威佑), T. W. Hsu, T. Y. Lee, C. Y. Hung, and B. Y. Huang, "*Development of Electronic Orbit Stability Monitoring and Analysis System in the Taiwan Photon Source*", International Particle Accelerator Conference (IPAC), 1259 Taipei, Taiwan (2025).
- Y.-H. Liu*(劉永慧) and Y.-C. Chung, "*The Data Acquisition System on Vibration Evaluation and Predictive Maintenance for Cooling Water Pumps System in TPS*", International Particle Accelerator Conference (IPAC), 75 Taipei, Taiwan (2025).
- Z.-K. Liu*(劉宗凱), F.-Y. Chang, M.-H. Chang, S.-W. Chang, L.-J. Chen, F.-T. Chung, C.-H. Huang, Y.-T. Li, M.-C. Lin, C.-H. Lo, C. Wang, and M.-S. Yeh, "*High-power Testing of TPS Heterogeneous One-to-four Power Combining*", International Particle Accelerator Conference (IPAC), 1047 Taipei, Taiwan (2025).
- Z.-K. Liu*(劉宗凱), M.-S. Chiu, H.-C. Chen, S.-J. Huang, M.-S. Yeh, and C. Wang, "*Application of Bayesian Optimization for the TLS Booster Extraction*", International Particle Accelerator Conference (IPAC), 2740 Taipei, Taiwan (2025).
- Z.-K. Liu*(劉宗凱), M.-C. Lin, C.-H. Lo, C. Wang, M.-S. Yeh, F.-Y. Chang, M.-H. Chang, F.-T. Chung, L.-J. Chen, S.-W. Chang, and Y.-T. Li, "*Study on the Instability of TPS with Superconducting Harmonic Cavity Under High Beam Current Operation*", IEEE T. Appl. Supercon. **35**, 3500305 (2025).
- C. H. Lo, M. C. Lin*(林明泉), Y. C. Hsu, M. K. Yeh, F. Y. Chang, Z. K. Liu, M. H. Chang, F. T. Chung, L. J. Chen, Y. T. Li, S. W. Chang, C. H. Huang, M. S. Yeh, and C. Wang, "*Elastoplastic Tuning on a Two-cell 1.5-GHz Superconducting Radio-frequency Cavity*", IEEE T. Appl. Supercon. **35**, 3500505 (2025).
- H. W. Luo*(羅皓文), "*A Study on Eddy Current Distribution in the Coating Layer of Nonlinear Kicker Chamber*", International Particle Accelerator Conference (IPAC), 866 Taipei, Taiwan (2025).
- E. Marshall*, O. B. Malyshev, and G.-Y. Hsiung, "*Modelling Photon-stimulated Desorption from NEG Coated Sample Tubes*", Vacuum **241**, 114599 (2025).
- I. C. Sheng*(沈怡青) and Y. M. Hsiao, "*Evaluating the Feasibility of TPS High Heat Load Components for High-current Operation Using TMSI*", International Particle Accelerator Conference (IPAC), 979 Taipei, Taiwan (2025).
- I.-C. Sheng*(沈怡青) and Y. M. Hsiao, "*Advanced Power Density Mapping for FEA Simulations of Synchron Accelerator High Heat Load Components*", International Particle Accelerator Conference (IPAC), 1858 Taipei, Taiwan (2025).
- K. L. Tsai*(蔡光隆), C. S. Fann, C. L. Chen, and H. P. Chang, "*Study of a Fast Kicker Magnet for Beam Scanning in VHEE Radiotherapy*", International Particle Accelerator Conference (IPAC), 1887 Taipei, Taiwan (2025).
- F. H. Tseng, T. W. Hsu, W. Y. Lin, Jenny Chen, and Y. C. Liu*(劉毅志), "*A Preliminary Results of the Local Orbit Feedback at Taiwan Photon Source*", J. Instrum. **20**, T05008 (2025).
- T. C. Tseng*(曾澤川), H. S. Wang, W. Y. Lai, C. J. Lin, K. H. Hsu, D. G. Huang, C. S. Huang, Y. C. Liu, and C. K. Kuan, "*A Vibrating Wire System for Multipole Magnets Alignment in TPS*", International Particle Accelerator Conference (IPAC), 2529 Taipei, Taiwan (2025).
- B. Wang*(王寶勝), K. Liu, and Y. Wong, "*Enhancing the Current Stability of the TPS Booster Ring Dipole Magnet Power Supply in DC Mode*", J. Instrum. **20**, T07010 (2025).
- B. S. Wang*(王寶勝), K. B. Liu, and Y. S. Wong, "*Development of a Modular Corrector Magnet Power Supply with N+1 Redundancy for TPS Facilities*", International Particle Accelerator Conference (IPAC), 1833 Taipei, Taiwan (2025).
- B.-S. Wang*(王寶勝), K.-B. Liu, P.-C. Chiu, C.-Y. Wu, and Y.-S. Wong, "*Enhanced Performance of Booster Ring Bending Magnet Power Supply for TPS Facility*", J. Instrum. **20**, T10008 (2025).
- Y.-S. Wong*(黃永信), K.-B. Liu, C.-S. Fann, C.-Y. Liu, B.-S. Wang, and J.-C. Huang, "*Performance Analysis and Stability Enhancement Plan for the Sextupole Magnet Power Supply in Storage Ring*", International Particle Accelerator Conference (IPAC), 1836 Taipei, Taiwan (2025).
- Z. Q. Wu*(吳子琦), C. Y. Liao, C. Y. Wu, S. H. Lee, J. K. Liao, and L. P. Hsu, "*Implementation of EPU66S Control System at the Taiwan Photon Source*", International Particle Accelerator Conference (IPAC), 2956 Taipei, Taiwan (2025).
- C. Y. Liao*(廖志裕), Z. Q. Wu, J. K. Liao, L. P. Hsu, C. Y. Wu, Y. S. Cheng, and J. Chen, "*Motion Protection Framework for TPS Insertion Device Control*", International Particle Accelerator Conference (IPAC), 3040 Taipei, Taiwan (2025).
- C. K. Yang*(楊謹綱), F. Y. Lin, H. H. Chen, Y. Y. Hsu, and C. W. Chen, "*Kicker Magnets for Fast-switching Elliptical Polarized Undulators Beamline of the TPS*", International Particle Accelerator Conference (IPAC), 1796 Taipei, Taiwan (2025).

Others

(Publications of the underlined author(s) affiliated with the NSRRC but not using the NSRRC facilities listed above)

- K. Alagesan, H. Nagarajan, A. Mathimaran, U. Vetrivel, V. Malaisamy, C.-J. Chen, and J. Jeyaraman*, "*A Promising Strategy to Disrupt Plasmodium Falciparum Metabolic Resilience by Targeting G6PD: Virtual Screening for Potential Inhibitors Against Malaria*", Comput. Biol. Chem. **118**, 108495 (2025).
- J. Chen, M. Mirvis, A. Ekman, B. Vanslembrouck, M. Le Gros, C. Larabell, and W. F. Marshall*, "*Automated Segmentation of Soft X-ray Tomography: Native Cellular Structure with Submicron Resolution at High-throughput for Whole-cell Quantitative Imaging in Yeast*", Mol. Biol. Cell **36**, 132 (2025).
- K.-C. Chen*(陳冠丞), T.-Y. Li, Y.-Y. Wang, S. See, C.-C. Wang, R. Wille, N.-Y. Chen, A.-C. Yang, and C.-Y. Lin, "*Validating Large-scale Quantum Machine Learning: Efficient Simulation of Quantum Support Vector Machines Using Tensor Networks*", Mach. Learn.-Sci. Technol. **6**, 015047 (2025).
- T. Chen, C.-W. Kao, L. Wang, C. Yuan, T. Yan, X. Ma, P. Zeng, L. Zhang*(張亮), and T.-S. Chan*(詹丁山), "*Modulated t_{2g} Orbitals of Spinel Oxides for Enhanced Catalytic Conversion of Polysulfides in Li-S Batteries*", Mater. Today Chem. **43**, 102490 (2025).
- J. Cong, Y. Wang, X. Lin, Z. Huang, H. Wang, J. Li, L. Hu, H. Hua, J. Huang, Y.-C. Lin, H. Xu, Z. Li, and Y. Huang*(黃云輝), "*Kinetics Compensation Mechanism in Cosolvent Electrolyte Strategy for Aqueous Zinc Batteries*", J. Am. Chem. Soc. **147**, 8607 (2025).
- S. S. Dwitya, K.-S. Lin*(林鋸松), M.-T. Weng*(翁孟慈), N. V. Mdlovu, L.-J. Lai, and C.-M. Wu, "*Thermo- and pH-responsive MOF-303 Mediated P127 and Gelatin Coating for Combination Drug Release and Liver Cancer Therapy*", Mater. Today Chem. **44**, 102548 (2025).
- A. Ekman*, J.-H. Chen, C. A Larabell, M. A Le Gros, and V. Weinhardt, "*Interior Soft X-ray Tomography with Sparse Global Sampling*", Phys. Scripta **100**, 126008 (2025).
- S. Ghosh, K. Bhattacharya, S. Sasmal, K. Bhatt, S. Kandar, B. Khan, C.-W. Luo, R. Singh, A. Basu, and S. Das*, "*Optically Pumped Ultrafast and Broadband Terahertz Modulation with Scalable Molecular Beam Epitaxy Grown $MoTe_2$/Si Heterostructures*", Adv. Mater. Technol. **10**, 2402036 (2025).
- S. M. Gowdru, P. H. Nagaraju, Y.-C. Chen, K.-C. Wu, C.-C. Chang, and D.-Y. Wang*(王迪彥), "*Enhanced Electrocatalytic Nitrate Reduction to Ammonia on Silver Nanocubes*", Chem. Commun. **61**, 6965 (2025).
- R. Hasan, P.-Y. Wu, T. A.gnihotri, S. A. Ahmed, A. Ranjan, E. B. Tamilarasan, S.-C. Yang, B. W. Taklu, L.-Y. Kuo, W.-N. Su*(蘇威年), S.-H. Wu*(吳溪煌), and B. J. Hwang*(黃炳照), "*A Signal-processing Framework for Preemptive Detection of Soft Shorts in Lithium-metal Batteries*", Cell Rep. Phys. Sci. **6**, 102973 (2025).
- J. A. Hlevyack, S.-Y. Guan, Y.-C. Tsui, C.-A. Wang, W.-Y. Chen, M.-K. Lin, Y. Li, S. S. Babu, P. Chen, R.-Y. Liu, J.-E. Lee, J. Hwang, S. Tang, Y. Bai, D. Flötotto, S.-K. Mo, J. N. Eckstein, P. Abbamonte, T.-M. Chuang*(莊天明), and T.-C. Chiang*(江台章), "*Topological Surface Superconductivity via Josephson Coupling in Bi_2Te_3/Nb*", Nano Lett. **25**, 16387 (2025).
- M.-K. Ho, Y.-T. Yu, H.-H. Chiu, K. Manjunatha*, S.-L. Yu, B.-L. Lyu, T.-E. Hsu, H.-C. Kuo, S.-W. Yu, W.-C. Tu, C.-Y. Chang, C.-L. Cheng, H. Nagabhushana, T.-T. Lin, Y.-R. Hsu, M.-C. Chen*(陳孟炬), Y.-L. Huang, and S. Y. Wu*

(吳勝允), "*Cu-doping Induced Structural Transformation and Magnetocaloric Enhancement in $CoCr_2O_4$ Nanoparticles*", Nanomaterials **15**, 1093 (2025).

- T.-E. Hsu, K. Manjunatha*, M.-K. Ho, H.-H. Chiu, S.-L. Yu, B.-L. Lyu, Y.-T. Yu, H.-C. Kuo, S.-W. Yu, C.-L. Cheng, S. Matteppanavar, H. Nagabhushana, M.-C. Chen, Y.-L. Huang, and S. Y. Wu*(吳勝允), "*High-performance Bi-doped $NiFe_2O_4$ Nanoparticles for Advanced Supercapacitors and Room-temperature Magnetic Memory Applications*", ACS Appl. Electron. Mater. **7**, 3704 (2025).
- B.-R. Huang, P.-K. Hsu, A. Gloter*, C.-L. Chen, J.-M. Song, and S.-Y. Chen* (陳詩芸), "*Modulating the Optical Properties of Carbon Quantum Dots Through Cerium Doping to Boost the Photocatalytic Efficiency of Titanium Dioxide Composites*", Adv. Sustain. Syst. **9**, e00283 (2025).
- B. Jeevanantham, M. K. Shobana*, Y. Nikodimos, S. A. Vallal, W.-N. Su* (蘇威年), and B. J. Hwang*(黃炳照), "*Alleviating Parasitic Reaction of Nickel-rich Layered Active Materials at High Voltage Cycling by Rare-earth Metal Oxide Coating: A Comparison of Cyclic Performance*", J. Power Sources **645**, 237237 (2025).
- P.-Y. Lai, D. S. Raja, J.-W. Chang, J.-H. Huang, and D.-H. Tsai*(蔡德豪), "*Real-time Quantification of Microfluidic Hydrogel Crosslinking via Gas-phase Electrophoresis*", J. Colloid Interf. Sci. **684**, 201 (2025).
- K.-M. Lee*(李坤穆), J.-T. Pan, W.-T. Chen, C.-H. Lin, Z.-W. Wang, W.-H. Chiu, W.-C. Chu, Y.-H. Chang, J.-F. Hsu, S.-R. Li, S.-I Lu*(呂世伊), H.-C. Hsieh*(謝孝基), C.-W. Hu, C.-H. Chen, J.-M. Chiu, K.-L. Liau, G. Chen, Y.-S. Liu, S.-S. Sun*(孫世勝), and Y.-D. Lin*(林彥多), "*Asymmetric Fluorinated Cyclopenta[2,1-b:3,4-b'] Dithiophene-based Hole-transporting Materials for Perovskite Solar Cell*", Chem.-Asian J. **20**, e00719 (2025).
- Z.-L. Li, L.-T. Wu, B. J. Hwang, and J.-C. Jiang*(江志強), "*Automated Phase Diagram Construction for Multi-component Electrolytes in Li-metal Batteries Using Combined DFT and COSMO-RS Approaches*", Electrochim. Acta **536**, 146802 (2025).
- M.-C. Liang*(梁茂昌), C.-H. Huang, M. H. Thiemens, S. K. Bhattacharya, S. Mahata, Y.-J. Chen, and T.-S. Yih, "*Novel Triple-oxygen Isotope Study Indicates Unprecedented Ozone-particulate Interaction Pathways in Atmospheric Pollution Chemistry*", ACS Omega **10**, 4388 (2025).
- Y.-H. Lin, Y.-H. Chung, G.-Y. Chen, H.-C. Lee, N. Kumar, C.-J. Chen, J.-A. Lin, C.-Y. Mou, A. H. MacDonald, C.-K. Shih, D.-A. Luh*(陸大安), J.-J. Su* (蘇蓉容), and P.-J. Hsu*(徐斌睿), "*Fabricating a Hexagonal FeTe Monolayer with a Moir´e Superlattice on Topological Insulator Bi_2Te_3*", Nanoscale Adv. **7**, 3088 (2025).
- V.-S. Luc, L.-A. Wang, Y.-H. Chen, S.-H. Yu, R.-H. Juang, L.-M. Lyu, C.-H. Pai, C.-B. Liu, Y.-T. Chan, C.-H. Kuo*(郭俊宏), and C.-C. Chang*(張佳智), "*Photoinduced Controlled Radical Polymerization Mediated by BiOCl Nanosheets Under Simulated Solar Light*", Eur. Polym. J. **238**, 114217 (2025).
- M. Mack, J.-Y. Sun, B. Shin, S. Boandoh, Y. Han, J. Lou, N. H. Nickel, C.-C. Lai, C.-W. Luo, and Y.-T. Tsai*, "*Functionalized Two-dimensional vdW Multijunction MoS_2-MoS_2/WS_2-WS_2/WS_2-WS_2 Platform for Defect-related Carrier Dynamics Studies*", Phys. Rev. Mater. **9**, 064005 (2025).
- P. Mannu, V. S. Manikandan, K. Kandhasamy, G. Bangaru, M. Palanisamy*, A. Thirumurugan, A. Kandasami, C.-L. Chen, and C.-L. Dong*(董崇禮), "*Thermal annealing-induced Phase Transition and Optical Property Modulation of $In_xSe_{80-x}Te_{20}$ Thin Film*", J. Mater. Sci.-Mater. Electron. **36**, 508 (2025).
- Z. B. Muche, Y. Nikodimos, C.-Y. Chang, S. K. Merso, T. M. Tekaligne, K. N. Shitaw, G. G. Serbessa, T. M. Hagos, B. W. Taklu, T. Agnihotri, S.-C. Yang, J.-M. Chiu, S.-H. Wu*(吳溪煌), W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Integrating Electrodes and PVDF-HFP/Kevlar Nanofiber Separator for Multi-functions Using Electrospinning*", Chem. Eng. J. **505**, 159493 (2025).
- S. S. Dwitya, K.-S. Lin*(林錕松), M.-T. Weng*(翁孟慈), N. V. Mdlovu, M.-T. Yang, and C.-M. Wu, "*Synthesis and Characterization of Oleic Acid-stabilized Cobalt Ferrite @MCM-41/Nanocomposites for pH-responsive Drug Delivery*", J. Ind. Eng. Chem. **143**, 339 (2025).
- I. Shamova, J.-Y. Sun, X.-Y. Chang, V. Popova, D. Chareev, L. Shvanskaya, D. Ksenofontov, A. Vorobyova, K. Lyssenko, A. Demidov, H.-Y. Yeh, W.-Y. Tzeng, J.-Y. Lin, C.-W. Luo, P. Monceau, E. Pachaud, E. Lorenzo, A. Sinchenko, A. Vasiliev, and O. Volkova*, "*Comparative Study of Terbium Tellurides Tb_2Te_5 and $TbTe_3$*", Phys. Rev. B **112**, 094434 (2025).
- K. N. Shitaw, H. K. Bezabh, Y. Nikodimos, M. A. Weret, T. M. Tekaligne, S. K. Merso, B. W. Taklu, S.-K. Jiang, C.-Y. Li, H.-Y. Liu, S.-H. Wu, W.-N. Su* (蘇威年), and B. J. Hwang*(黃炳照), "*Potassium Underpotential Deposition for Defect-free Lithium Deposition in Anode-free Li-metal Batteries*", Small Methods **9**, 2500207 (2025).
- C.-L. Tai, Y.-N. Chiu, C.-J. Chen, S.-K. Lin, H.-C. Lin, R. D. K. Misra, Y.-L. Yang, C.-N. Hsiao, C.-S. Tsao, and T.-F. Chung*(鍾采甫), "*Phenomenological Understanding of the Contribution of Bulk and Grain Boundary Precipitates on Strengthening in Prolonged-aged Al-Zn-Mg-Cu Aluminium Alloys*", Mater. Today Adv. **25**, 100557 (2025).
- Y.-C. Tai, C.-W. Luo, N. Takagi, H. Ishida, C.-L. Lin*(林俊良), and R. Arafune*, "*Coherent Multiphoton Photoemission Spectroscopy of Image-potential State on Ir(111) Surface*", Appl. Phys. Express **18**, 062001 (2025).
- B. W. Taklu, P. H. Chia, C. L. Liu, Y. Nikodimos, G. G. Serbessa, L. T. Kitaba, K. N. Shitaw, T.-I. Yeh, L.-Y. Lin, J.-H. Chang, S. K. Chaudhary, W.-N. Su* (蘇威年), and B. J. Hwang*(黃炳照), "*Reaction-induced Heat Evolution and Interface Stabilization from Bifunctional Chlorine-rich Anode for Sulfide Solid-state Batteries*", Energy Storage Mater. **82**, 104552 (2025).
- B. W. Taklu, T.-I Yeh, C.-Y. Chang, T. M. Hagos, Y. Nikodimos, S. A. Vallal, A. Windmüller, C.-C. Chang, K. N. Shitaw, T. Agnihotri, R. Hasan, Z. B. Muche, Y.-C. Huang, S.-C. Yang, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Two-step Activations and Liquid Metal Fortified Copper Substrate on Corrosion Tolerance in Anode-free Lithium-sulfur Battery*", ACS Energ. Lett. **10**, 5925 (2025).
- M. W.-Y. Tu*, L.-S. Lin, C.-Y. Wang, J.-P. Chou, S.-Y. Wei, C.-M. Tu, C.-N. Kuo, C. S. Lue, and C.-W. Luo, "*Ultrafast Spintronics with Geometric Effects in Nonadiabatic Wave-packet Dynamics*", Phys. Rev. B **112**, 035417 (2025).
- B. Vinay, Y. Nikodimos*, T. Agnihotri, S. A. Ahmed, T. M. Hagos, R. Hasan, E. B. Tamilarasan, W.-N. Su*(蘇威年), and B. J. Hwang*(黃炳照), "*Fluorine-free Electrolytes in Batteries: Principles, Strategies, and Advances*", Energ. Environ. Sci. **18**, 7326 (2025).
- Y.-J. Wang, C. Chuang, C.-C. Chung, P.-C. Chu, W.-C. Lin, J.-W. Zhang, Y.-L. Chueh, Z. Yang, R. Huang*(黃榮), K.-H. Chang, H.-J. Liu, H.-L. Liu, J.-Y. Sun, X.-Y. Chang, H.-C. Chan, C.-W. Luo, Y.-M. Sheu, J.-M. Wu, Y.-C. Chen*(陳怡誠), and Y.-H. Chu*(朱英豪), "*Epitaxial Antiferroelectric Bi_2O_2S Films with Superior Photoresponse*", ACS Appl. Mater. Interfaces **17**, 21392 (2025).
- L.-T. Wu, Y.-T. Zhan, Y.-C. Chiu, B. J. Hwang, and J.-C. Jiang*(江志強), "*Multifunctional Zwitterionic Self-healing Polymer Electrolytes for Anode-free Lithium-metal Batteries: a Computational Perspective*", Small **21**, 2503382 (2025).
- L.-T. Wu, B. J. Hwang, and J.-C. Jiang*(江志強), "*Combined Machine Learning and Computational Protocols to Predict Electrolyte Behavior and SEI Formation in Li-metal Batteries*", Chem. Eng. J. **515**, 163801 (2025).
- J. Yang, W. Wei, C. Zhou, H. Yan, H. Che, L. Hao, X. Tan*(譚心怡), A. W. Robertson, T.-S. Wu, Y.-L. Soo, A. Tang*(唐羣), and Z. Sun*(孫振宇), "*High-stable All-iron Redox Flow Battery with Innovative Anolyte Based on Steric Hindrance Regulation*", Angew. Chem. Int. Edit. **64**, e202414452 (2025).
- R. A. Yuwono, P.-X. Yu, R. Foeng, C. Khotimah, S. Salshabilla, F.-M. Wang* (王復民), M.-T. Tang, and N.-L. Wu, "*Tailoring the Lithium Deposition on Cu Substrate by a Functionalized-polysiloxane Layer*", Batteries Supercaps **8**, e202400488 (2025).

Neutron Project

(Supported by the NSRRC and NSTC 114-2112-M-213-006 "Cultivation and Promotion of Taiwan Neutron Research at ANSTO")

- H.-Y. Chen, C.-L. Mo, J.-J. Shyue, T.-Y. Huang*(黃子晏), and M.-J. Chen* (陳敏璋), "*Probing $Hf_{0.5}Zr_{0.5}O_2$ Ferroelectricity: Neutron Reflectivity Reveals Critical Interface Effects*", ACS Appl. Mater. Interfaces **17**, 16102 (2025).
- J.-K. Hu, Y.-J. Lee, C.-C. Wu, C.-H. Lee, C.-M. Wu, H.-C. Wu, K. Nawa, K. Kinjo, T. J. Sato, and P.-C. Wei*(魏百駿), "*Dual Crystal-liquid Thermal Transport Behavior in $MAPbCl_3$*", Small **21**, 2408773 (2025).
- X.-M. Huang, Y. Zhao, X Hao, H.-Y. Xiang, J.-H. Yang, C.-W. Wang, W. Yang, C. Zhang, B. Zhao, J. Ma, Z. Li, Y. Kuang, L. Zuo, X. Tong*(童欣), H.-L. Yan* (閻海樂), and Q. Ren*(任清勇), "*Enhanced Deep-freezing Magneto- and Elasto-caloric Effects by Modifying Lattice Anharmonicity and Electronic Structures*", Acta Mater. **296**, 121302 (2025).
- I.-L. Jen, C.-Y. Lin, K.-K. Wang, C.-M. Wu, C.-H. Lee*(李其紘), and H.-J. Wu*(吳欣潔), "*Avoided Crossing Phonons Realizes High-performance Single-crystalline β-Zn_4Sb_3 Thermoelectrics*", Adv. Sci. **12**, 2411498 (2025).
- D. C. Kakarla*, A. Tiwari, Y. H. Tseng, T. W. Yen, H. C. Wu, C. W. Wang, M.-J. Hsieh, J.-Y. Lin, A. Pal, C. Dhanasekhar, D. P. Gulo, H. L. Liu, and H. D. Yang* (楊弘敦), "*Spin-reorientation Induced Hidden Electric Polarization in the Noncentrosymmetric Berlinite Magnetic Oxide α-$FePO_4$*", Phys. Rev. B **111**, 214418 (2025).
- T. W. Kuo, C. C. Chen, D. Chandrasekhar Kakarla, A. Tiwari, C.-W. Wang, M. Gooch, L. Z. Deng, C. W. Chu, H. D. Yang*(楊弘敦), and H. C. Wu*(吳紘丞), "*Enhanced Néel-type Skyrmion Stability in Polar $VOSe_2O_5$ Through Tunable Magnetic Anisotropy Under Pressure*", Phys. Rev. B **112**, 024441 (2025).
- S. Liu, A. Li, X. Hao, M. Chen, Y. Huang, Y. Yu, C.-W. Wang, Q. Ren*(任清勇), T. Zhu*(朱鐵軍), and C. Fu*(付晨光), "*Synthesis and Thermal Stability of Topological Semimetal $RMnSb_2$ (R=Yb, Sr, Ba, Eu)*", Sci. Technol. Adv. Mat. **26**, 2512702 (2025).
- C. H. Prashanth*, D. C. Kakarla, B. Saha, A. Nayak, C.-W. Wang, A. Tiwari, H. D. Yang, S.-M. Huang, M. M. C. Chou, A. K. Bera*, and K. Jyothinagaram*, "*Temperature- and field-induced magnetic phase transitions in $BaHoFeO_4$: A neutron diffraction study*", Phys. Rev. B **112**, 064406 (2025).

- S. Rathnayaka, S. Yano, J.-B. Morée, K. Kawashima, J. Akimitsu, C. M. Brown, J. Neuefeind, and D. Louca*, "*Sensitivity of Electronic Structure to Crystal Distortions in Infinite-layered $LaNiO_2$*", Phys. Rev. B **111**, 014518 (2025).
- S. Sharma*, P. Jain, B. Schundelmier, C.-W. Wang, P. Yadav, A. M. S., K. Wei, N. P. Lalla, and T. Siegrist, "*Structural Inhomogeneities and Suppressed Magnetostructural Coupling in Mn-substituted $GeCo_2O_4$*", Chem. Mater. **37**, 5995 (2025).
- Y. Sun, R. Yu, S. Khmelevskyi, K. Kato, Y. Cao*(曹宜力), S. Hu, M. Avdeev, C.-W. Wang, C. Yu, Q. Li, K. Lin, X. Kuang*(匡小軍), and X. Xing*(邢獻然), "*Local Chemical Heterogeneity Enabled Superior Zero Thermal Expansion in Nonstoichiometric Pyrochlore Magnets*", Natl. Sci. Rev **12**, nwae462 (2025).
- H. Tamatsukuri*(玉造博夢), T. Kozawa, S. Mitsuda, M. Fujihala, K. Kinjo, K. Nawa, H.-C. Wu, T. J. Sato, and S. Yano, "*Irreversible Process of the Atomic Reconstruction Phenomenon Induced by Uniaxial Stress in MnP*", Phys. Rev. B **112**, 184115 (2025).
- L. Tegg, H. E. Ostergaard, M. Jovicevic-Klug*, P. Jovicevic-Klug, C.-M. Wu, and J. M. Cairney*, "*In-situ SANS for the Kinetic Analysis of β" Precipitation in an Al-Mg-Si Alloy Following Deep Cryogenic Treatment*", J. Alloy. Compd. **1025**, 180371 (2025).
- C.-W. Wang*(王進威), C.-N. Kuo, C.-S. Lue, R. O. Piltz, and C.-H. Lee* (李其紘), "*Magnetic Structure of Ternary Intermetallic $Tb_3Co_4Sn_{13}$ with Nonchiral Crystal Structure*", Chinese J. Phys. **94**, 355 (2025).
- C.-W. Wang, C.-S. Horng, and A. P. Roberts*, "*Ferrimagnetic Structure of 3C Pyrrhotite (Fe_7S_8) From Neutron Diffraction*", Geochem. Geophy. Geosy. **26**, e2025GC012470 (2025).
- P.-C. Wei, Y.-S. Tseng, H.-Y. Tseng, S.-J. Wu, J.-K. Hu, T.-Y. Yung, T.-C. Chen, H.-C. Wu, C.-M. Wu, and W.-H. Li*(李文献), "*Thermally Sensitive Infra-red Absorption Bands and Lattice Incommensurability in Photoelectric $(CH_3NH_3)PbI_3$*", Phys. Rev. Mater. **9**, 055401 (2025).
- C.-Y. Wu, C.-E. Huang, A.-C. Luo, W.-H. Lu, S.-C. Huang, Y.-M. Huang, V. K. Peterson, H.-Y. Liu, C.-L. Chen, Y.-R. Lu, T.-Y. Chen, C.-Z. Lu*(陸成章), W. K. Pang*, and H.-Y. Chen*(陳翰儀), "*Enabling High-performance and High-ratecapability $Na_4MnV(PO_4)_3$ Sodium-ion Battery Cathodes Through Tuning the NASICON Framework*", J. Mater. Chem. A **13**, 2716 (2025).
- H. Wu, D. Zhang, W. Zheng, M. Cong, W. Ren*(任衛軍), F. Gao, C.-W. Wang, B. Li, P. Miao*(繆平), and Z. Zhang, "*The Magnetism and Magnetic Structure of Layered Compound β-$DyGa_3$*", J. Alloy. Compd. **1041**, 183793 (2025).
- J. Yang*, D. Obeysekera, W. Ratcliff, L. Li, S. N. Neal, J. L. Musfeldt, and S. Yano, "*Multiferroicity and Phase Diagram of Ferro-rotational Magnet $RbFe(SO_4)_2$*", J. Phys.-Condens. Mat. **37**, 175701 (2025).
- W. Yao*, S. Liu, H. Kikuchi, H. Ishikawa, Ø. S. Fjellvåg, D. W. Tam, F. Ye, D. L. Abernathy, G. D. A. Wood, D. Adroja, C.-M. Wu, C.-L. Huang, B. Gao, Y. Xie, Y. Gao, K. Rao, E. Morosan, K. Kindo, T. Masuda, K. Hashimoto, T. Shibauchi* (芝内孝禎), and P. Dai*(戴鵬程), "*Anomalous Electrical Transport in the Kagome Magnet $YbFe_6Ge_6$*", Phys. Rev. Lett. **134**, 186501 (2025).

Student Dissertations

Doctorate

- K.-C. Chen (陳冠群), Advisor Prof. R.-S. Liu (劉如熹), Dept. of Chem., Natl. Taiwan Univ., "*Control of Shortwave Infrared Phosphors and Their Applications in Optical Fiber Amplifiers and Light-Emitting Diodes*" (2025).
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- Y.-T. Lin (林毅濤), Advisor Prof. Y.-G. Zhang (張躍鋼), Dept. of Phys., Tsinghua Univ., "*Operando X-ray Absorption Spectroscopy Study on the Cathode Reaction Mechanism in All-Solid-State Lithium-Sulfur Batteries*" (2025).
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