List of Publications (2022)

Experiments Performed at NSRRC Beamlines

主導性 之 SCIE 論文

1. K.-E. Hung, Y.-S. Lin, Y.-J. Xue, H.-R. Yang, Y.-Y. Lai, J.-W. Chang, C.-J. Su, A.-C. Su(蘇群仁), C.-S. Hsu, U.-S. Jeng*(鄭有舜), and Y.-J. Cheng*(鄭彥如), "*Non-volatile Perfluorophenyl-based Additive for Enhanced Efficiency and Thermal Stability of Nonfullerene Organic Solar Cells via Supramolecular Fluorinated Interactions*", Adv. Energy Mater. **12** , 2103702 (2022). (I.F.=29.698)★

2. C.-W. Tung, T.-R. Kuo, Y.-P. Huang, Y.-C. Chu, C.-H. Hou, Y. Li, N.-T. Suen, J. Han*(韓杰), and H. M. Chen*(陳浩銘), "*Dynamic Co(μ-O)$_2$Ru Moiety Endowed Efficiently Catalytic Hydrogen Evolution*", Adv. Energy Mater. **12**, 2200079 (2022). (I.F.=29.698)★

3. J.-W. Chen, S.-H. Hsieh, S.-S. Wong, Y.-C. Chiu, H.-W. Shiu(許紘瑋), C.-H. Wang(王嘉興), Y.-W. Yang(楊耀文), Y.-J. Hsu(許瑤真), D. Convertino, C. Coletti, S. Heun, C.-H. Chen*(陳家浩), and C.-L. Wu*(吳忠霖), "*Hydrogen Spillover and Storage on Graphene with Single-site Ti Catalysts*", ACS Energ. Lett. **7**, 2297 (2022). (I.F.=23.991)★

4. M. Qin, Y. Li, Y. Yang, P. F. Chan, S. Li, Z. Qin, X. Guo, L. Shu, Y. Zhu, Z. Fan, C.-J. Su*(蘇群仁), and X. Lu*(路新慧), "*Regulating the Crystallization Kinetics and Lattice Strain of Lead-free Perovskites with Perovskite Quantum Dots*", ACS Energ. Lett. **7**, 3251 (2022). (I.F.=23.991)★

5. S. Zhou, C.-L. Chiang, J. Zhao*(趙建慶), G. Cheng, T. Bashir, W. Yin*(尹萬健), J. Yao, S. Yang, W. Li, J. Wang, X. Wang, Y. G. Lin*(林彥谷), and L. Gao*(高立軍), "*Extra Storage Capacity Enabled by Structural Defects in Pseudocapacitive NbN Monocrystals for High-energy Hybrid Supercapacitors*", Adv. Funct. Mater. **32**, 2112592 (2022). (I.F.=19.924)★

6. K. Du, L. Zhang, J. Shan, J. Guo, J. Mao, C.-C. Yang, C.-H. Wang*(王嘉興), Z. Hu*(胡振芃), and T. Ling*(凌濤), "*Interface Engineering Breaks Both Stability and Activity Limits of RuO$_2$ for Sustainable Water Oxidation*", Nat. Commun. **13**, 5448 (2022). (I.F.=17.694)★

7. Y. Li, C.-K. Peng, H. Hu, S.-Y. Chen, J.-H.Choi*, Y.-G. Lin*(林彥谷), and J.-M. Lee*, "*Interstitial Boron-triggered Electron-deficient Os Aerogels for Enhanced pH-universal Hydrogen Evolution*", Nat. Commun. **13**, 1143 (2022). (I.F.=17.694)★

8. L.-C. Wang, L.-C. Chang, W.-Q. Chen, Y.-H. Chien, P.-Y. Chang, C.-W. Pao, Y.-F. Liu, H.-S. Sheu*(許火順), W.-P. Su*(蘇文彬), C.-H. Yeh*(葉丞豪), and C.-S. Yeh*(葉晨聖), "*Atomically Dispersed Golds on Degradable Zero-valent Copper Nanocubes Augment Oxygen Driven Fenton-like Reaction for Effective Orthotopic Tumor Therapy*", Nat. Commun. **13**, 7772 (2022). (I.F.=17.694)★

9. X.-F. Luo(羅旭峯), J. Patra, W.-T. Chuang(莊偉綜), T. X. Nguyen, J.-M. Ting, J. Li, C.-W. Pao*(包志文), and J.-K. Chang*(張仍奎), "*Charge-discharge Mechanism of High-entropy Co-free Spinel Oxide Toward Li$^+$ Storage Examined Using Operando Quick-scanning X-ray Absorption Spectroscopy*", Adv. Sci. **9**, 2201219 (2022). (I.F.=17.521)★

10. S. Chen, X. Li, C.-W. Kao, T. Luo, K. Chen, J. Fu, C. Ma, H. Li, M. Li, T.-S. Chan*(詹丁山), and M. Liu*(劉敏), "*Unveiling the Proton-feeding Effect in Sulfur-doped Fe-N-C Single-atom Catalyst for Enhanced CO$_2$ Electroreduction*", Angew. Chem. Int. Edit. **61**, e202206233 (2022). (I.F.=16.823)★

11. Y. Zhu, G. Chen, Y.-C. Chu, C.-S. Hsu, J. Wang, C.-W. Tung, and H. M. Chen*(陳浩銘), "*Hetero-atomic Pairs with a Distal Fe^{3+}-site Boost Water Oxidation*", Angew. Chem. Int. Edit. **61**, e202211142 (2022). (I.F.=16.823)★

12. T.-Y. Han, C.-H. Lin, Y.-S. Lin, C.-M. Yeh, Y.-A. Chen, H.-Y. Li, Y.-T. Xiao, J.-W. Chang(張哲瑋), A.-C. Su, U.-S. Jeng*(鄭有舜), and H.-H. Chou*(周鶴修), "*Autonomously Self-healing and Ultrafast Highly-stretching Recoverable Polymer through Trans-octahedral Metal-ligand Coordination for Skin-inspired Tactile Sensing*", Chem. Eng. J. **438**, 135592 (2022). (I.F.=16.744)★

13. Y. Chen, H.-Y. Chang, M.-T. Lee, Z.-R. Yang, C.-H. Wang(王嘉興), K.-Y. Wu*(吳冠毅), W.-T. Chuang*(莊偉綜), and C.-L. Wang*(王建隆), "*Dual-axis Alignment of Bulk Artificial Water Channels by Directional Water-induced Self-assembly*", J. Am. Chem. Soc. **144**, 7768 (2022). (I.F.=16.383)★

14. Y.-C. Liu, J.-T. Lin, Y.-L. Lee, C.-M. Hung, T.-C. Chou, W.-C. Chao, Z.-X. Huang, T.-H. Chiang, C.-W. Chiu, W.-T. Chuang*(莊偉綜), and P.-T. Chou*(周必泰), "*Recognizing the Importance of Fast Nonisothermal Crystallization for*

High-performance Two-dimensional Dion-Jacobson Perovskite Solar Cells with High Fill Factors: A Comprehensive Mechanistic Study", J. Am. Chem. Soc. **144**, 14897 (2022). (I.F.=16.383)★

15. H. Sun, C.-W. Tung, Y. Qiu, W. Zhang, Q. Wang, Z. Li, J. Tang, H.-C. Chen, C. Wang*(王春棟), and H. M. Chen*(陳浩銘), "*Atomic Metal-support Interaction Enables Reconstruction-free Dual-site Electrocatalyst*", J. Am. Chem. Soc. **144** , 1174 (2022). (I.F.=16.383)★

16. W. Lin, Y.-R. Lu(盧英睿), W. Peng, M. Luo*(羅敏), T.-S. Chan*(詹丁山), and Y. Tan*(譚勇文), "*Atomic Bridging Modulation of Ir-N, S Co-doped MXene for Accelerating Hydrogen Evolution*", J. Mater. Chem. A **10**, 9878 (2022). (I.F.=14.511)★

17. H.-J. Liu*(劉恒睿), C.-Y. Chiang*(莊慶有), Y.-S. Wu, L.-R. Lin, Y.-C. Ye, Y.-H. Huang, J.-L. Tsai, Y.-C. Lai, and R. Munprom, "*Breaking the Relation between Activity and Stability of the Oxygen-evolution Reaction by Highly Doping Ru in Wide-band-gap $SrTiO_3$ as Electrocatalyst*", ACS Catalysis **12**, 6132 (2022). (I.F.=13.700)★

18. J. Zhou, Y. Hu, Y.-C. Chang*(張又中), Z. Hu*(胡志偉), Y.-C. Huang, Y. Fan, H.-J. Lin(林宏基), C.-W. Pao(包志文), C.-L. Dong, J.-F. Lee(李志甫), C.-T. Chen(陳建德), J.-Q. Wang, and L. Zhang*(張林娟), "*In Situ Exploring of the Origin of the Enhanced Oxygen Evolution Reaction Efficiency of Metal(Co/Fe)-organic Framework Catalysts Via Postprocessing*", ACS Catalysis **12** , 3138 (2022). (I.F.=13.700)★

19. H. Tang, M.-H. Wu, H.-Y. Lin, M.-R. Han, Y.-H. Tu, Z.-J. Yang, T.-C. Chien*(簡敦誠), N.-L. Chan*(詹迺立), and W.-C. Chang*, "*Mechanistic Analysis of Carbon-carbon Bond Formation by Deoxypodophyllotoxin Synthase*", P. Natl. Acad. Sci. USA **119** , e2113770119 (2022). (I.F.=12.779)★

20. L.-C. Hsu(許良境), Y.-M. Tzou, W.-H. Liao, H. Y. Teah, and Y.-T. Liu*(劉雨庭), "*Transformation of Sedimentary and Colloidal Phosphorus Across the Land-sea Margin Received Effluents from Agricultural and Municipal Activities*", J. Clean. Prod. **379**, 134686 (2022). (I.F.=11.072)★

21. C.-J. Chang*(張棋榕), P.-Y. Chao, J.-K. Chen, A. Pundi, Y.-H. Yu, C.-L. Chiang(江昭龍), and Y.-G. Lin*(林彥谷), "*Metal Complex/ZnS-modified Ni Foam as Magnetically Stirrable Photocatalysts: Roles of Redox Mediators and Carrier Dynamics Monitored by Operando Synchrotron X-ray Spectroscopy*", ACS Appl. Mater. Interfaces **14**, 41870 (2022). (I.F.=10.383)★

22. C.-M. Hsieh, H.-C. Hsiao, Y. Yamada, W.-R. Wu(吳瑋儒), U.-S. Jeng(鄭有舜), C.-J. Su*(蘇群仁), Y.-S. Lin, M. Murata*, Y. J. Chang*(張源杰), and S.-C. Chuang*(莊士卿), "*Promoting the Efficiency and Stability of Nonfullerene Organic Photovoltaics by Incorporating Open-cage [60]Fullerenes in the Nonfullerene Nanocrystallites*", ACS Appl. Mater. Interfaces **14**, 39109 (2022). (I.F.=10.383)★

23. M.-W. Lin, P.-H. Chen, L.-C. Yu, H.-W. Shiu, Y.-L. Lai(賴玉鈴), S.-L. Cheng, J.-H. Wang*(王禎翰), D.-H. Wei(魏德新), H.-J. Lin(林宏基), Y.-Y. Chin, and Y.-J. Hsu*(許瑤真), "*Enhanced Magnetic Order and Reversed Magnetization Induced by Strong Antiferromagnetic Coupling at Hybrid Ferromagnetic-organic Heterojunctions*", ACS Appl. Mater. Interfaces **14**, 16901 (2022). (I.F.=10.383)★

24. L.-C. Wang, L.-C. Chang, G.-L. Su, P.-Y. Chang, H.-F. Hsu, C.-L. Lee, J.-R. Li, M.-C. Liao, S. Thangudu, J. Treekoon, C.-C. Yu, H.-S. Sheu*(許火順), T.-Y. Tu*(涂庭源), W.-P. Su*(蘇文彬), C.-H. Su*(蘇家豪), and C.-S. Yeh*(葉晨聖), "*Chemical Structure and Shape Enhance MR Imaging-guided X-ray Therapy Following Marginative Delivery*", ACS Appl. Mater. Interfaces **14**, 13056 (2022). (I.F.=10.383)★

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26. T. T. Beyene*, W.-N. Su, and B. J. Hwang*(黃炳照), "*Dilute Dual-salt Electrolyte for Successful Passivation of In-situ Deposited Li Anode and Permit Effective Cycling of High Voltage Anode Free Batteries*", J. Power Sources **542**, 231752 (2022). (I.F.=9.794)★

27. M. A. Weret, C.-F. J. Kuo*(郭中豐), W.-N. Su*(蘇威年), T. S. Zeleke, C.-J. Huang, N. A. Sahalie, T. A. Zegeye, Z. T. Wondimkun, F. W. Fenta, B. A. Jote, M.-C. Tsai, and B. J. Hwang*(黃炳照), "*Fibrous Organosulfur Cathode Materials with High Bonded Sulfur for High-performance Lithium-sulfur Batteries*", J. Power Sources **541**, 231693 (2022). (I.F.=9.794)★

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29. Y.-R. Lu(盧英睿), H.-C. Chen, K. Liu, M. Liu, T.-S. Chan(詹丁山), and S.-F. Hung*(洪崧富), "*Turn the Trash into Treasure: Egg-white-derived Single-atom Electrocatalysts Boost Oxygen Reduction Reaction*", ACS Sustain. Chem. Eng. **10**, 6736 (2022). (I.F.=9.224)★

30. S. K. Merso, T. M. Tekaligne, H. H. Weldeyohannes, Y. Nikodimos, K. N. Shitaw, S.-K. Jiang, C.-J. Huang, Z. T. Wondimkun, B. A. Jote, L. Wichmann, G. Brunklaus, M. Winter, S.-H. Wu, W.-N. Su*(蘇威年), C.-Y. Mou*(牟中原), and B. J. Hwang*(黃炳照), "*An In-situ Formed Bifunctional Layer for Suppressing Li Dendrite Growth and Stabilizing the Solid Electrolyte Interphase Layer of Anode Free Lithium Metal Batteries*", J. Energy Storage **56**, 105955 (2022). (I.F.=8.907)★

31. S.-W. Chen*(陳世偉), S.-A. Chen(陳興安), T.-S. Chan(詹丁山), S.-C. Weng(翁世境), Y.-F. Liao(廖彥發), N. Hiraoka(平岡望), T.-Y. Chen, B.-Y. Shew(許博淵), J.-M. Chen(陳錦明), and C.-H. Lee, "*Polymorphic Transition to Metastable Phases in Hollow Structured Silicon Anode in a Li-ions Battery*", Appl. Mater. Today **26** , 101333 (2022). (I.F.=8.663)★

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34. Y.-P. Huang, C.-W. Tung, T.-L. Chen, C.-S. Hsu, M.-Y. Liao*(廖美儀), H.-C. Chen*(陳効謙), and H. M. Chen*(陳浩銘), "*In Situ Probing the Dynamic Reconstruction of Copper-zinc Electrocatalysts for CO_2 Reduction*", Nanoscale **14**, 8944 (2022). (I.F.=8.307)★

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36. C.-J. Chang*(張棋榕), C.-L. Huang, Y.-H. Yu, M.-C. Teng, C.-L. Chiang, and Y.-G. Lin*(林彥谷), "*Electron Transfer Dynamics and Enhanced H_2 Production Activity of Hydrangea-like BiOBr/Bi_2S_3-based Photocatalysts with Cu-complex as a Redox Mediator*", Appl. Surf. Sci. **576** , 151870 (2022). (I.F.=7.392)★

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38. H. H. Lee, E. Lim, S. Kang, Y. A. Eshete, D. Won, Y. Lee, J.-Y. Jeong, H. Yang*, C.-Y. Chiang(蔣慶有)*, and S. Cho*, "*Local Phase Transition at Crack Edges of $Mo_{1-x}W_xTe_2$ Polymorphs*", Appl. Surf. Sci. **596**, 153503 (2022). (I.F.=7.392)★

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40. S.-W. Hsiao, P.-J. Wu*(吳品鈞), and W.-C. Chou, "*Thermal Effect on the Electronic Properties of ZnO/CdS/CIGSeS Solar Cell at/near the Heterojunction Interfaces*", ACS Appl. Energy Mater. **5**, 10994 (2022). (I.F.=6.959)★

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43. S.-Y. Lin, W.-J. Huang, S.-L. Chou(周勝隆), H.-F. Chen, and Y.-J. Wu*(吳宇中), "*Formation of Para-H_2O by Vacuum-UV Photolysis of O_2 in Solid Hydrogen: Implication for Astrochemistry*", J. Phys. Chem. Lett. **13**, 10439 (2022). (I.F.=6.888)★

44. H. Y. Huang(黃筱妤), A. Singh(辛艾蒙), C. I. Wu, J. D. Xie, J. Okamoto(岡本淳), A. A. Belik, E. Kurmaev, A. Fujimori, C. T. Chen(陳建德), S. V. Streltsov*, and D. J. Huang*(黃迪靖), "*Resonant Inelastic X-ray Scattering as a Probe of J_{eff} = 1/2 State in 3d Transition-metal Oxide*", npj Quantum Mater. **7**, 33 (2022). (I.F.=6.856)★

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52. Y.-T. Cheng, H.-W. Wan, J. Kwo*(郭瑞年), M. Hong*(洪銘輝), and T.-W. Pi*(皮敦文), "*A Synchrotron Radiation Photoemission Study of SiGe(001)-2X1 Grown on Ge and Si Substrates: The Surface Electronic Structure for Various Ge Concentrations*", Nanomaterials **12**, 1309 (2022). (I.F.=5.719)★

53. Z.-H. Shi, F.-M. Hsu, B. W. Mansel, H.-L. Chen, L. Fruk, W.-T. Chuang*(莊偉綜), and Y.-C. Hung*(洪毓玨), "*Kinetics and Mechanism of In Situ Metallization of Bulk DNA Films*", Nanoscale Res. Lett. **17** , 18 (2022). (I.F.=5.418)★

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55. T.-S. Wu(吳泰興), S.-F. Chen, S.-C. Weng(翁世璋), and Y.-L. Soo*(蘇雲良), "*Formation of Co-O Bonds and Reversal of Thermal Annealing Efects Induced by X-ray Irradiation in (Y, Co)-codoped CeO_2 Nanocrystals*", Sci. Rep. **12** , 1578 (2022). (I.F.=4.997)★

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Neutron Project

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