Curriculum Vitae

Biographical Information

Name: Wei-Ren Liu

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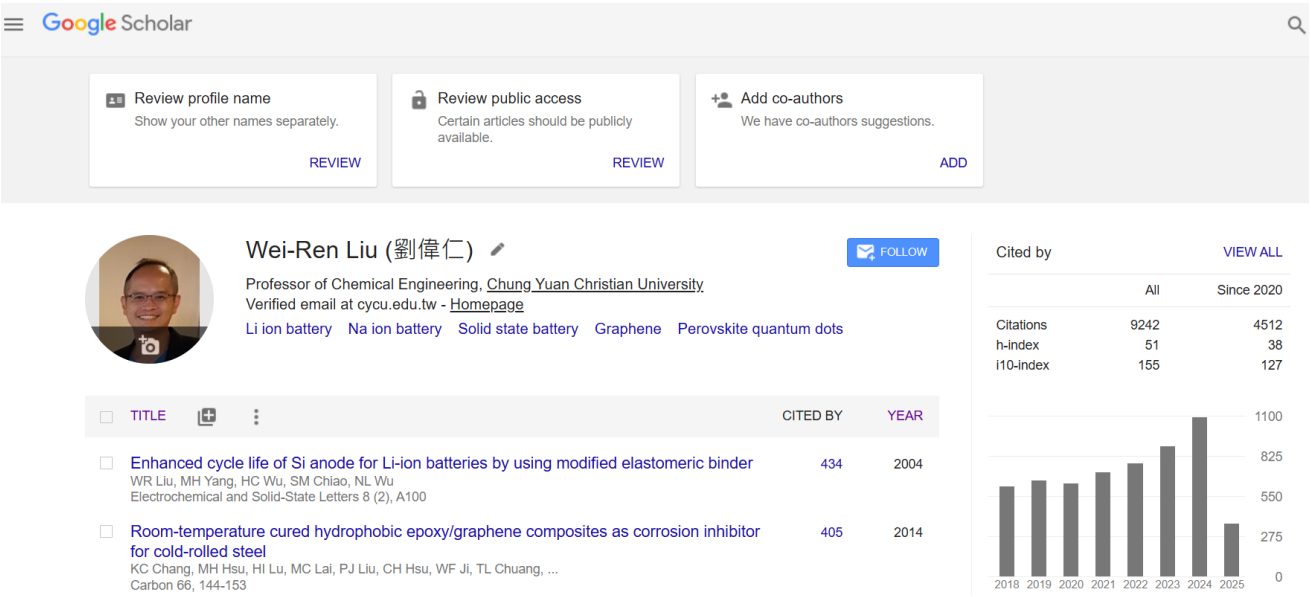
SCI paper: 233, Citation times: 9242, *h*-index: 51 (Google Scholar, 04/01/2025 update)

Patents: 29, English text books: 2, Chinese text books: 2



Educations

Ph.D. in *Department of Chemical Engineering*, *National Taiwan University* (2006)

M.S. in *Department of Chemical Engineering*, *Chung Yuan Christian University* (2001)

B.S. in *Department of Chemical Engineering*, *Chung Yuan Christian University* (1999)

Personal Activities

2005.10 - 2006.3 Graduate student study abroad program by NSC, R.O.C. in Austria, Graz University of Technology

2006.10 - 2012.1 Researcher in Material and Chemistry Laborites, Industrial Technology of Research Institute

2009.1 - 2010.12 The examiner, Small Business Innovation Research

2012.2 - 2015.7 Assistant Professor, Department of Chemical Engineering, Chung Yuan Christian University

2015.8 - 2019.7 Associate Professor, Department of Chemical Engineering,

	Chung Yuan Christian University
2016.2 – 2021.7	Director, Center of Resource and Development, Chung Yuan Christian University
2016.7 - 2016.8	Visiting Professor in Materials Science and Engineering, Hokkaido University, Japan
2018.7 - 2018.8	Visiting Professor in Materials Science and Engineering, Kyushu University, Japan
2019.8 - now	Professor, Department of Chemical Engineering, Chung Yuan Christian University
2021.8 - 2024.7	Director, Office of Research and Development, Department of Chemical Engineering, Chung Yuan Christian University
2023.7 - 2023.8	Visiting Professor in Materials Science and Engineering, Massachusetts Institute of Technology, USA
2022.8 - 2024.7	Vice dean, Office of Research and Development, Department of Chemical Engineering, Chung Yuan Christian University
2022 - 2025	Secondary Reviewer, National Science and Technology Council
2023.11 - now	Chairman, Carbon Society of Taiwan
2023.11 - now	Director, Electrochemical Society of Taiwan

Researches Area & Interests

1. Energy storage materials

Anode/Cathode materials for Li/Na ion batteries

Li/Na all solid-state batteries (ASSBs)

Solid electrolytes for Li/Na ASSBs

2. Graphene-based materials

Novel approaches to synthesize graphene

Graphene-based materials for energy materials

Graphene-based materials for heat dissipation

Graphene-based materials for EMI shielding

Graphene-based materials for anticorrosion

Graphene-based materials for lighting

3. Luminescence materials

LED phosphors

Carbon quantum dots

Perovskite quantum dots

LED devices

Publication List

2025: 13篇

1. Priya Lakshmanan, Chia-Hung Huang, Suba Devi Rengapillai,* Yong-Song Chen, **Wei-Ren Liu**, Cheng-Liang Hsu and Sivakumar Marimuthu,* "Graphite Felt Decorated withMetal – Organic Framework-Derived Nanocomposite as Cathode for Vanadium Redox Flow Battery," *Nanomaterials*, **15**, 7 (2025) 535.【IF:5.3】

2. Celastin Bebina Thairiyarayar, Ting-Fong Huang, Jeng-Kuei Chang, Ju Li, Soorathep Kheawhom and **Wei-Ren Liu**,* "Advances in Sodium All-Solid-State Batteries: Insights into Sulfide Solid Electrolytes and Their Applications," (2025). *J. Taiwan Inst. Chem. Eng. in press.*【IF:5.5】

3. Purna Chandra Rath, Chun-Yen Chen, Jagabandhu Patra, Chun-Chen Yang, Yu-Sheng Su, Chien-Te Hsieh, **Wei-Ren Liu**, Ju Li, and Jeng-Kuei Chang,* "High-Entropy Non-Flammable Ionic Liquid/Dimethoxymethane Composite Electrolyte for High-Performance Lithium-Ion Batteries," *Advanced Sciences* (2025) 2417306.【IF:14.3】

4. Yu-Hsuan Li, S. Kishore Babu, Duncan H. Gregory, Soorathep Kheawhom, Jeng-Kuei Chang and **Wei-Ren Liu**,* "Silicon/hard carbon composites synthesized from phenolic resin as anode materials for lithium-ion batteries," *Nanomaterials* **15**, 6 (2025) 455. 【IF:5.3】

5. Myo Thandar Hlaing, Mohan Gopalakrishnan, Supareak Praserthdam, **Wei-Ren Liu**, Ahmad Azmin Mohamad, Saravanan Rajendran, Insik In, Soorathep Kheawhom,* "Carbon dots as multifunctional additives in zinc-ion batteries: progress, challenges, and opportunities," *Chem. Eng. J.* **509** (2025) 101327.【IF:13.4】

6. Wei-Chu Hsu, S. Kishore Babu, Chien-Te Hsieh* and **Wei-Ren Liu***, "Enhanced electrochemical properties of hard carbon anode derived from phenolic resin modified via an oxygen-induced plasma surface treatment for lithium-ion batteries," *Surface and Interfaces*, **62** (2025) 106282.【IF:5.7】

7. Pradeep Kumar Panda, Heng-Yu Huang, Pranjyan Dash, Chien-Te Hsieh*, Jeng-Kuei Chang*, **Wei-Ren Liu**,* "Liquid-phase microwave synthesis of platinum-based high-entropy alloy catalysts on carbon supports for electrochemical hydrogen adsorption/desorption and oxygen evolution/reduction reactions," *Int. J. Hydrogen Energy*, **111** (2025) 536-545.【IF:8.1】

8. Premnahth Jeyaraj Janshirani, Subadevi Rengapillai,* Soundarrajan Elumalai, Raghu Subashchandrabose, **Wei-Ren Liu** and Sivakumar Marimuthu,* "Sulfur- layered porous carbon nanostructured matrix - Co_3O_4 Composites: An enhancement of Cycling Performance in Sodium-Sulfur Battery," *J. Taiwan Inst. Chem. Eng.* **170** (2025) 105978.【IF:5.5】

9. Manikandan Venkatesan, Wei-Chun Lin, Wei-Cheng Chen, Jayashree Chandrasekar, Yu-Hang Huang, Kai-Wei Lin, Zih-Syuan Syu, Ja-Hon Lin, Wei-Hung Chiang, **Wei-Ren Liu**,* Ye Zhou,* Chi-Ching Kuo,* "Ambient stable $ZnBr_2$-assisted lead-free perovskite for enhanced piezoelectricity of polyvinylidene fluoride in versatile piezo-phototronic applications," *Chem. Eng. J.* **505** (2025) 159541. 【IF:13.4】

10. Mohan Gopalakrishnan, Myo Thandar Hlaing, Thirumoorthy Kulandaivel, Wathanyu Kao-ian, Mohammad Etesami, **Wei-Ren Liu**, Mai Thanh Nguyen, Tetsu Yonezawa, Wanwisa Limphirat, Soorathep Kheawhom,* "Tunable N-doped Carbon Dots/SnO_2 Interface as a Stable Artificial Solid Electrolyte Interphase for High-Performance Aqueous Zinc-Ion Batteries," *J. Alloys Compd.*, **1010** (2025) 178268.【IF:5.8】

11. Cheng-En Yu, S. Kishore Babu, Ming-Kuen Huang, Jeng-Kui Chang and **Wei-Ren Liu**,* "Enhancing the electrochemical stability of the $Li_{1.3}Al_{0.3}Ti_{1.7}(PO_4)_3$ by altering with Li_6PS_5Cl composite solid electrolytes for all-solid-state lithium batteries," *J. Energy Storage*, **110** (2025) 115332.【IF:8.9】

12. Thirumoorthy Kulandaivel, Mohan Gopalakrishnan, Wanwisa Limphirat, Chanon Pornrungroj, **Wei-Ren Liu**, Ahmad Azmin Mohamad, Mai Thanh Nguyen, Tetsu Yonezawa and Soorathep Kheawhom,* "Hybrid g-C_3N_4/sulfur-enclosed MnS micro/nanorods accelerate electron-ion transport and asymmetric supercapacitor performance," *J. Alloys Compd.*, **1010** (2025) 178268.【IF:5.8】

13. Ya-Hsuan Chiang and **Wei-Ren Liu**,* "Few-layer graphene/MoS_2 composite coatings via jet cavitation processes for anti-corrosion applications," *J. Alloys Compd.*, **1010** (2025) 177234.【IF:5.8】

2024: 20篇

14. Jagabandhu Patra, Thi Xuyen Nguyen, Ananya Panda, Jyh-Ming Ting, Rajendra S Dhak, **Wei-Ren Liu**, Chun-Chen Yang and Jeng-Kuei Chang,* "Fluoroethylene Carbonate Electrolyte Additive for Improved Charge-Discharge Performance of Co-free High Entropy Spinel Oxide Anodes for Lithium-Ion Batteries," *Ceramics International*, *in press* (2024).【IF:5.1】

15. Kai-Wen Liu, Bing-Hsuan Hsu, Jeng-Kuei Chang, Fu-Ming Wang* and **Wei-Ren Liu**,* "Surface modification of $Li_{1.3}Al_{0.3}Ti_{1.7}(PO_4)_3$ solid electrolytes by polymethylsiloxane-based polymer for all-solid-state lithium batteries," *Ceramics International* (2024) *in press*.【IF:5.1】

16. Yu-Chen Chen, Po-Yu Li, Chung-Wei Kung, Jhe-Wei Chang, Cheng-Wei Kao, Chi-Ching Kuo* and **Wei-Ren Liu**,*"Near-infrared-emitting $(Gd_{1-y}Nd_y)_3(Ga_{1-x}Cr_x)_5O_{12}$ Glass Ceramic Phosphors for Light-emitting Diodes," *Ceramics International* (2024) *in press*.【IF:5.1】

17. Zhi-Ting Liu, Yu-Chen Hsu, Szu-Chia Chien, Szu-Chia Chien and **Wei-Ren Liu**,* "Temperature effects on lithium/sodium-ion storage behaviors of hard carbon microspheres derived from phenolic resin as potential anode for rechargeable batteries applications," *J. Taiwan Inst. Chem. En*. **164** (2024) 105698.【IF:5.5】

18. Siva Palanisamy, Mohan Gopalakrishnan, Sagar Ingavale, Mohammad Etesami, Wanwisa Limphirat, **Wei-Ren Liu**, Mongkol Tipplook, Katsuya Teshima, Soorathep Kheawhom,* "Sandwiched heterostructure of $NiFe_2O_4/TiO_2$ nanocrystals and MXene nanosheets for highly active oxygen electrocatalyst in rechargeable zinc-air batteries," *J. Energy Storage*, **98**, Part B (2024) 113139.【IF:8.9】

19. Hao-Hsuan Hsia, You-Liang Chen, Yu-Ting Tai, Hong-Kang Tian, Chung-Wei Kung* and **Wei-Ren Liu*** "Two-dimensional Metal-Organic Frameworks/Epoxy Composite Coatings for Anticorrosion Applications,"

ACS Appl. Mater. & Interfaces, **16**, 31 (2024) 41421–41434.【IF:8.3】Cover

20. Yimeng Huang, Yanhao Dong, Yang Yang, Tongchao Liu, Moonsu Yoon, Sipei Li, Baoming Wang, Yongwen Sun, Ying Ham, Aubrey Penn, Jinhyuk Lee, Yaqi Liao, Haijin Ji, Ting Shi, Mengyi Liao, Zexiao Cheng, Jingwei Xiang, **Wei-Ren Liu**, Rasu Muruganantham, Chun-Chuen Yang, Lu Ma, Xianghui Xiao, Yuntong Zhu, Qingjie Li, Ethan Yupeng Zheng, Avetik Harutyunyan and Ju Li,* "Integrated rocksalt-polyanion cathodes with excess lithium and stabilized cycling," *Nature Energy* **9** (2024) 1497-1505.【IF:37.2】

21. Rasu Muruganantham, Jun-Ying Huang, Pei-June Wu, Liang-Yin Kuo, Chun-Chuen Yang, Yan-Gu Lin, Ju Li and **Wei-Ren Liu**,* "Nano-crystalline $Fe_3V_3O_8$ Material as an Efficient Advanced Anode for Energy Storage Applications," *J. Power Sources*, **613** (2024) 234947. 【IF:9.2】

22. Yun-Xiang Lan, Yun-Hsuan Chen, Ying-Lung Chao, Yu-Hsuan Chang, Yu-Chi Huang, **Wei-Ren Liu**,* Wei-Tsan Wong, Andrew Chi-Fa Sun, Karen S. Santiago, Jui-Ming Yeh,* "Green and heavy-duty anticorrosion coatings: Waterborne epoxy thermoset composites modified through variation of zinc dust loading and incorporation of ACAT and GO," *Polymers*, **30**, 16 (2024) 1252. 【IF:5.000】

23. Pei-Jun Wu, Chia-Hung Huang, Chien-Te Hsieh* and **Wei-Ren Liu**,* "Synthesis and characterization of $MnIn_2S_4$/SWCNT composites as an anode material for Lithium-ion batteries," *Nanomaterials,* **14**, 8 (2024) 716. 【IF:5.300】

24. Cheng-En Yu, Duncan H. Gregory and **Wei-Ren Liu**,* "$Li_{1.3}Al_{0.3}Ti_{1.7}(PO_4)_3$ (LATP) solid electrolytes synthesized by microwave-assisted hydrothermal reactions for Li all-solid-state battery applications," *Surface & Coatings Technology*, **481**, (2024) 130671.【IF:5.400】

25. Debabrata Mohanty, I-Ming Hung,* Chien-Te Hsieh,* Jin-Pin Pan and **Wei-Ren Liu**,* "Critical Review on High-Safety Lithium Ion Batteries Modified by Self-Terminated Oligomers with Hyper Branched Architectures," *Batteries*, **10**, 2 (2024) 65.【IF:4.000】

26. Rasu Muruganantham, Hsin-Wei Wu, Yu Lo and **Wei-Ren Liu**,* "Improving Electrochemical Stability by Modifying the Li_6PS_5Cl Entailed with the Mixed Phase of $Li_{6.4}La_3Zr_{1.4}Ta_{0.6}O_{12}$ Composite Solid Electrolytes for All-Solid-State Lithium Battery Applications," *Surface & Coatings Technology*, **479** (2024) 130480. 【IF:5.400】

27. Hsiao-Ching Wang, Rasu Muruganantham, Chien-Te Hsieh* and **Wei-Ren Liu**,* "Electrochemical Elucidation of Phosphorus-doped and 3D Graphene Aerogel Surface-modified SiO_x Porous Nanocomposite Electrode Material for High-performance Lithium-ion batteries," *Electrochimica Acta*, **447**, 10 (2024) 143775.【IF:7.336】

28. Jala Bib Khan, Pradeep Kumar Panda, Po-Chih Yang, Chien-Te Hsieh,* Yasser Ashraf Gandomi, **Wei-Ren Liu**,* Jeng-Kuei Chang,* "Microwave synthesis of high-entropy alloy catalysts on graphene oxide sheets for oxygen reduction and evolution reactions," *Int. J. Hydrogen Energy*, **53** (2024) 991-1008. 【IF:7.139】

29. Zhi-Ting Liu, Tzu-Hsien Hsieh, Cheng-Wei Huang, Meng-Lun Lee and **Wei-Ren Liu**,* "Temperature effects

on hard carbon derived from sawdust as anode materials for Sodium ion batteries," *J. Taiwan Inst. Chem. Eng*., **154** (2024) 104889.【IF:5.700】

30. T. Meenatchi, R. Subadevi,* P. Kumar, S. Raghu, **Wei-Ren Liu*** and M. Sivakumar,* "An Impact of Sea Sponge-Derived Hard Carbon with the Symbiosis of Sodium Ion Battery and Biomedical Applications," **154** (2024) *J. Taiwan Inst. Chem. Eng*. 105083. 【IF:5.700】

31. S. S. Pradeepa, K. Sutharthani, R. Subadevi,* **Wei-Ren Liu** and M. Sivakumar,* "Investigation on two-dimensional molybdenum oxide-graphitic carbon nitride (MoO_3-gC_3N_4) heterostructures based hybrid electrodes for the fabrication of high energy density solid state supercapacitors," *J. Taiwan Inst. Chem. Eng*. **154** (2024) 105084. 【IF:5.700】

32. Kuan-Chien Liu, Pradeep Kumar Panda, Bikash Chandra Mallick, Po-Chih Yang, **Wei-Ren Liu*** and Chien-Te Hsieh,* "Solid-Phase Microwave Synthesis of High-Entropy Graphene Quantum Dots as Metal-Free Electrochemical Catalysts," *Applied Surface Science*, **648**, 1 (2024) 159061. 【IF:6.700】

33. Hao-Hsuan Hsia, Geng-Hua Li, Yun-Xiang Lan, Liang-Yin Kuo, Jui-Ming Yeh* and **Wei-Ren Liu**,* "Experimental and Theoretical Calculations of Fluorinated Few-layer Graphene/epoxy Composite Coatings for Anticorrosion Applications," *Carbon*, **217** (2024) 118604. 【IF:11.307】

2023: 16篇

34. Rong-You Zhang, Mengyao Gao, **Wei-Ren Liu**, Wei-Hung Chiang, Li-Hsien Yeh,* "A Graphene/Carbon Black Nanofluidic Membrane with Fast Ion Transport for Enhanced Electrokinetic Energy Generation," *Carbon,* **204**, (2023) 1-6. 【IF:11.307】

35. Cheng-Feng Li, Rasu Muruganantham, Wei-Chun Hsu, Martin Ihrig, Chien-Te Hsieh,* Chih-Chieh Wang* and **Wei-Ren Liu**,* "Atomic layer deposition of ZnO on $Li_{1.3}Al_{0.3}Ti_{1.7}(PO_4)_3$ enables its application in all solid-state Li Batteries," *J. Taiwan Inst. Chem. Eng*. **144** (2023) 104681. 【IF:5.876】

36. Rasu Muruganantham, Jou-An Chen, Chun-Chuen Yang, Fu-Ming Wang* and **Wei-Ren Liu**,* "Spinel Phase $MnIn_2S_4$ Enfolded with Reduced Graphene Oxide as Composite Anode Material for Lithium-Ion Storage," *Materials Today Sustainability,* **21** (2023) 100278. 【IF:7.050】

37. Cheng-Kuan Kuo, Mei-Chun Lin and **Wei-Ren Liu,*** "Effects of Oxygen Vacancy Concentration and Sintering Temperature on Rechargeable Li-ion Storage Performance of Titanium Niobate Anode Materials," *Ceramics International,* **49**, 4 (2023) 7057-7065.【IF:5.532】

38. Po-Yu Sung, Mi Lu, Chien-Te Hsieh,* Yasser Ashraf Gandomi,* Siyong Gu, **Wei-Ren Liu**,* "Sodium Super Ionic Conductor-Type Hybrid Electrolytes for High Performance Lithium Metal Batteries," *Membranes*, **13**, 2 (2023) 201.【IF:4.562】

39. Yun-Xiang Lan, Kai-Wen Hu, Minsi Yan; **Wei-Ren Liu**,* Wei-Tsan Wong, Chi-Fa Sun, Jui-Ming Yeh,* "Synergistic effect of electrocatalytic characteristics of a redox segment and gas barrier of rGO to significantly

replace the loading of zinc dust in solvent-based epoxy composites applied for heavy-duty anticorrosion coatings," *ACS Applied Engineering Materials*, **1**, 3 (2023) 955-969. 【New SCI】

40. Yun-Xiang Lan, Yi-Chi Cho, **Wei-Ren Liu**,* Wei-Tsan Wong, Chi-Fa Sun, Jui-Ming Yeh,* "Small-load rGO as partial replacement for the large amount of zinc dust in epoxy zinc-rich composites applied in heavy-duty anticorrosion coatings," *Progress in Organic Coatings*, **175** (2023) 107332.【IF:6.130】

41. Rasu Muruganantham, Tzu-Hsin Tseng, Meng-Lun Lee, Soorathep Kheawhom, and **Wei-Ren Liu*** "Artificial Interface Modification of Ni-rich Ternary Cathode Material to Enhance Electrochemical Performance for Li-ion Storage through RF-Plasma-assisted Technique," *Chem. Eng. J.* **464**, 15, (2023) 142686.【IF:16.744】

42. Yi-Xuan Guo, Chia-Hung Huang, Yasser Ashraf Gandomi, Chien-Te Hsieh* and **Wei-Ren Liu**,* "Synthesis and Electrochemical Properties of Co_3O_4@reduced Graphene Oxides Derived from MOF as an Anodes for Lithium-Ion Battery Applications," *Sustainability*, **15** (2023) 4988. 【IF:3.889】

43. Vipada Aupama, Wathanyu Kao-ian, Jinnawat Sangsawang, Mohan Gopalakrishnan, Suttipong Wannapaiboon, Ahmad Azmin Mohamad, Prasit Pattananuwat, Chakrit Sriprachuabwong, **Wei-Ren Liu**, Soorathep Kheawhom,* "Stabilizing a zinc anode via a tunable covalent organic frameworks-based solid electrolyte interphase," *Nanoscale*, **15** (2023) 9003-9013.【IF:8.307】

44. Wen-Chia Chen, Ruei-Ci Wang, Sheng-Kai Yu, Jheng-Liang Chen, Yu-Han Kao, Tzi-Yuan Wang, Po-Ya Chang, Hwo-Shuenn Sheu, Ssu-Ching Chen, **Wei-Ren Liu**, Ta-I Yang,* Hsuan-Chen Wu,* "Self-Healable Spider Dragline Silk Materials," *Adv. Funct. Mater.* (2023) 2303571 【IF:19.924】

45. Yi-Ting Hsieh and **Wei-Ren Liu,*** "Highly Porous Silica Synthesized by a Microwave-assisted Hydrothermal Method derived from Recycled Silicon Sludge for Thermal Insulation Applications," *Ceram. Int.,* **49**, 19 (2023) 32164-32171. 【IF:5.200】

46. Zhen Fan, **Wei-Ren Liu**, Lin Sun, Akira Nishio, Robert Szczesny, Yan-Gu Lin, Shigeto Okada and Duncan Gregory,* "Carbon-free Conversion of SiO_2 to Si via Ultra-Rapid Alloy Formation: Toward the Sustainable Fabrication of Nanoporous Si for Lithium Ion Batteries," *ACS Appl. Mater. & Interfaces*, **15**, 30 (2023) 36076-36085.【IF:10.383】

47. Chih-Wei Yang, Meng-Lun Lee, Wen-Ren Liu, Celastin Bebina Thairiyarayar, **Wei-Ren Liu**,* Tsan-Yao Chen* and Chi-Young Lee,* "Conductive Additives Effects on NCA–LFMP Composite Cathode in Water-Based Binder for HighSafety Lithium-Ion Batteries," *Micro*, **3**, 3 (2023) 739-748.【IF:3.523】

48. Chen-Chu Hsu, Livy Laysandra, Yu-Cheng Chiu,* and **Wei-Ren Liu,*** "Pivotal Role of Boron-doped Graphene Quantum Dots in Stretchable and Self-Healable Red Emission Nanocomposite Film: One Step Advance for White Light Emitting Diodes Application," *Chem. Eng. J.* **473** (2023) 145469. 【IF:16.744】

49. Celastin Bebina Thairiyarayar, Chia-Hung Huang, Yasser Ashraf Gandomi, Chien-Te Hsieh* and **Wei-Ren Liu**,* "Synthesis and characterization of Na_3SbS_4 solid electrolytes via mechanochemical and sintered solid-

state reactions: A comparative study," *Sustainability,* **15**, 21 (2023), 15662.【IF:3.889】

2022: 24篇

50. Jianying Chen, **Wei-Ren Liu**, Yanjuan Li, Xikun Zou, Wei Li, Jiarong Liang, Haoran Zhang, Yingliang Liu, Xuejie Zhang, Chaofan Hu, Bingfu Lei,* "Architecting ultra-bright silanized carbon dots by alleviating the spin-orbit coupling effect: a specific fluorescent nanoprobe to label dead cells," *Chem. Eng. J.,* **428** (2022) 131168【IF:10.652】

51. Meng-Lin Hsieh, Ruey-Shin Juang, Yasser Ashraf Gandomi, Chun-Chieh Fu, Chien-Te Hsieh,* **Wei-Ren Liu**,* "Synthesis and Characterization of High-Performance ZnO/Graphene Quantum Dot Composites for Photocatalytic Degradation of Metronidazole," *J. Taiwan Inst. Chem. Eng*., **131** (2022) 104180【IF:5.876】

52. Rasu Muruganantham, Mei-Chun Lin, Po Kai Wang, Bor Kae Chang, and **Wei-Ren Liu**,* "Highly effective Al-doped titanium niobate porous anode material for rechargeable high-rate Li-ion storage performance," *J. Taiwan Inst. Chem. Eng*., **131** (2022) 104187. 【IF:5.876】

53. Ting-Hao Hsu, Rasu Muruganantham and **Wei-Ren Liu,*** "High-energy ball-milling for fabrication of $CuIn_2S_4$/C composite as an anode material for lithium-ion batteries," *Ceramics International*, **48**, 8 (2022) 11561-11572. 【IF:4.527】

54. Wei-Ting Chen, Rasu Muruganantham and **Wei-Ren Liu**,* "Construction of 3D Porous Graphene Aerogel Wrapped Silicon Composite as Anode Materials for High-Efficient Lithium-Ion Storage," *Surface & Coatings Technology*, **434** (2022) 128147. 【IF:4.158】

55. Shu-Han Zhuang, Chun-Chuen Yang, Mingtao Zheng Subadevi Rengapillai, Sivakumar Marimuthu, Yu-Shen Chiang, Bor Kae Chang and **Wei-Ren Liu*** "A combined first principles and experimental study on Al-doped $Na_3V_2(PO_4)_2F_3$ cathode for rechargeable Na batteries," *Surface & Coatings Technology*, **434** (2022) 128184.【IF:4.158】

56. Wathanyu Kao-ian, Ahmad Azmin Mohamad, **Wei-Ren Liu**, Rojana Pornprasertsuk, Siwaruk Siwamogsatham, Soorathep Kheawhom,* "Stability enhancement of zinc-ion batteries using nonaqueous electrolytes," *Batteries & Supercaps*, 5, 5 (2022) e202100361. 【IF:7.093】

57. Rasu Muruganantham, Chih-Wei Yang, Hong-Jyun Wang, Chia-Hung Huang and **Wei-Ren Liu,*** "Industrial silicon-wafer wastage-derived carbon enfolded Si/Si-C/C nanocomposite anode material through plasma-assisted discharge process for rechargeable Li-ion storage," *Nanomaterials*, **12**, 4 (2022) 659. 【IF:5.076】

58. Yu-Xuan Chiang, Rasu Muruganantham and **Wei-Ren Liu,*** "Nitrogen-doped hard carbon derived from agro-food waste of mushroom bags biomass as an anode material for sodium-ion batteries," *MRS Energy & Sustainability*, **9** (2022) 313-323. 【IF:4.300】

59. Kun-Bin Cai, Hsiu-Ying Huang, Meng-Lin Hsieh, Po-Wen Chen, Shou-En Chiang, Sheng Hsiung Chang, Ji-Lin Shen, **Wei-Ren Liu*** and Chi-Tsu Yuan,*"Two-Dimensional Self-Assembly of Boric Acid-Functionalized

Graphene Quantum Dots: Tunable and Superior Optical Properties for Efficient Eco-Friendly Luminescent Solar Concentrators," *ACS Nano*, **16**, 3 (2022) 3994-4003. 【IF:14.790】

60. Rajkumar Palanisamy, Diwakar Karuppiah, Subadevi Rengapillai, Mozaffar Abdollahifar, Gnanamuthu Ramasamy, Fu-Ming Wang, **Wei-Ren Liu**, Kumar Ponnuchamy, Joongpyo Shim, Sivakumar Marimuthu,* "A Reign of Bio-mass derived Carbon with the Synergy of Energy Storage and Biomedical Applications," *Journal of Energy Storage*, **51** (2022)104422. 【IF:8.907】

61. Shih-Han Chang, Kuan-Chen Kung, Wei-Chieh Huang and **Wei-Ren Liu,*** "Few-layer graphene as an additive in negative electrodes for lead-acid batteries," *Thin Solid Film*, **753**, 1 (2022) 139273.【IF:2.183】

62. Pei-Min Ting, Jun-Ying Huang and **Wei-Ren Liu**,* "Nitrogen-doped effects on few-layer graphene as anode materials for Lithium-ion batteries," *Materials Today Communications,* **21** (2022) 103498. 【IF:3.662】

63. Yu-Hong Yeh, Kuei-Ting Hsu* Chia-Hung Huang and **Wei-Ren Liu**,* "Facile and green process to synthesize a three-dimensional network few-layer graphene/carbon nanotube composite for electromagnetic interference shielding," *Polymers*, **14**, 9 (2022) 1892. 【IF:4.329】

64. Rasu Muruganantham, Fu-Ming Wang,* and **Wei-Ren Liu,*** "A Green Route N, S-Doped Hard Carbon Derived from Fruit-Peel Biomass Waste as an Anode Material for Rechargeable Sodium-Ion Storage Applications," *Electrochimica Acta*, **424**, 20 (2022) 140573.【IF:7.336】

65. Yi-Ting Hsieh, Hsi-Nien Ho, Kuei-Ting Hsu* and **Wei-Ren Liu,*** "Improvement of Electromagnetic Interference Properties of 3D Few-Layer Graphene Composite by Means of Freeze-Drying," *Ceramics International*, **48**, 18 (2022) 26107-26115【IF:4.527】

66. Rasu Muruganantham, Cheng-Yi Lin, Hsin-Wei Wu, Duncan H. Gregory* and **Wei-Ren Liu,*** "Interface Design Strategy in Combined Materials of Lithium Thiophosphate Electrolyte for Solid-State Lithium-Ion Batteries Applications," *J. Taiwan Inst. Chem. Eng*., **138** (2022) 104446.【IF:5.876】

67. Shu-Yu Chang, Yi-Ting Hsieh, Ying-Jhen Chung, Yi-Feng Lin* and **Wei-Ren Liu,*** "$CsPbBr_3$/aluminum (III)-1,3,5-benzenetricarboxylate composites for white light-emitting diode applications," *J. Taiwan Inst. Chem. Eng*., **138** (2022) 104468. 【IF:5.876】

68. Jhao-Yu Guo, Jou-An Chen, Song-Yu Chen, Meng-Lun Lee, **Wei-Ren Liu**,* and Yu-Lin Kuo,* "Reactive plasma oxygen-modified and nitrogen-doped soft carbon as a potential anode material for lithium-ion batteries using a tornado-type atmospheric pressure plasma jet," *Electrochimica Acta*, **427**, 20 (2022) 140897.【IF:7.336】

69. Zhen Fan, Hsi-Nien Ho, Robert Szczęsny, **Wei-Ren Liu**, and Duncan H Gregory,* "Rapid, Energy-Efficient and Pseudomorphic Microwave-Induced-Metal-Plasma (MIMP) Synthesis of Mg_2Si and Mg_2Ge," ***CrystEngComm***, **24** (2022) 5801-5809.【IF:3.756】

70. Ya-Chun Chang and **Wei-Ren Liu,*** "Co/ZnO/nitrogen-doped carbon composite anodes derived from metal organic frameworks for lithium-ion batteries," *Polymers,* **14** (2022) 3085.【IF:4.329】

71. Bing-Hsuan Hsu and **Wei-Ren Liu**,* "Synthesis and Characterizations of $Na_4MnCr(PO_4)_3$/rGO as NASICON-type Cathode Materials for Sodium-ion Batteries," *Polymers,* **14** (2022) 4046. 【IF:4.329】

72. Zhen Fan, Siobhan C. Stevenson, Alexander Mungall, Akira Nishio, Robert Szczęsny, Yan-Gu Lin, Mark Chen, **Wei-Ren Liu**, Shigeto Okada, Duncan H Gregory,* "Hierarchical Nanoporous Ge Anodes for Lithium-ion Batteries via Plasma-phase-fabricated Mg_2Ge," *Mater. Adv.* **3** (2022) 8512-8521.

73. Ting-Yu Lee and **Wei-Ren Liu,*** "Reduced graphene oxide-wrapped novel $CoIn_2S_4$ spinel composite anode materials for Li-ion batteries," *Nanomaterials*, **12** (2022) 4367. 【IF:5.076】

2021: 10篇

74. T. Meenatchi, V. Priyanka, R. Subadevi, **Wei-Ren Liu**, Chia-Hung Huang and M. Sivakumar, "Probe on Hard Carbon electrode derived from Orange Peel for energy storage application," *Carbon Letters,* **31**, 3 (2021) 1033-1039.【IF:1.917】

75. Rasu Muruganantham, Yu-Juan Gu, Yi-Da Song, Chung-Wei Kung* and **Wei-Ren Liu**,* "Ce-MOF Derived Ceria: Insights into the Na-Ion Storage Mechanism as a High-Rate Performance Anode Material," *Applied Materials Today,* **22** (2021) 100935.【IF:8.352】

76. Jou-An Chen, Michal Piasecki, Chun-Chuen Yang, Myron Rudysh and **Wei-Ren Liu*** "Synthesis, luminescent properties and ab initio study of yellow-emitting $Sr_8MgGa(PO_4)_7:Eu^{2+}$ phosphors for white light-emitting diodes," *J. Lumin.*, **235**, 10 (2021) 117982.【IF:3.280】

77. Yu-Hung Chen, Jin-KunYe, Tzu-Wei Liu, **Wei-Ren Liu** and Ying-Chih Pu,* "Mechanisms behind photocatalytic CO_2 reduction by $CsPbBr_3$ perovskite-graphene-based nanoheterostructures," *Applied Catalysis B – Environmental*, **284**, 5, 119751 (2021) 【IF: 16.683】

78. P. Rajkumar, K. Diwakar, R. Subadevi,* R. M. Gnanamuthu, F. M. Wang, **W. R. Liu** and M. Sivakumar,* "Graphene sheet-encased silica/sulfur composite cathode for improved cyclability of lithium-sulfur batteries," *Journal of Solid State Electrochemistry*, **25**, 3, (2021) 939-948【IF: 2.646】

79. Rasu Muruganantham, Fu-Ming Wang,* Rio Akbar Yuwono, **Wei-Ren Liu**,* and Michael M. Sabugaa, "Biomass Feedstock of Waste Mango-Peel Derived Porous Hard Carbon for Sustainable High-Performance Lithium-Ion Energy Storage Devices," *Energy & Fuels*, **35**, 13, 10878 (2021)【IF:3.421】Cover

80. Hao-Hsuan Hsia, Irish Valerie B. Maggay, Rasu Muruganantham and **Wei-Ren Liu**,* "$ZnIn_2S_4$: A promising anode material with high electrochemical performance for sodium-ion batteries," *Ceramics International,* **47**, 20 (2021) 28634-28641【IF:3.830】

81. Zhen Fan, Gytis Baranovas, Holly Yu, Robert Szczęsny, **Wei-Ren Liu** and Duncan H Gregory,* "Ultra-rapid synthesis of the $MgCu_2$ and Mg_2Cu laves phases and their facile conversion to nanostructured copper with controllable porosity; an energy-efficient, reversible process," *Green Chem.*, **23** (2021) 6936-6944 【IF:9.405】

82. Yun-Xiang Lan, Chih Wei Weng, Mahmoud M. M. Ahmed, Kun-Hao Luo Wei-Fu Ji, **Wei-Ren Liu**, Jui-Ming Yeh,* "Aniline pentamer-modified reduced graphene oxide/epoxy composites as anticorrosion coatings," *Materials Chemistry and Physics*, **264**, 4 (2021) 124446.【IF:4.094】

83. Diksha Thakur, Meng-Lin Hsieh, Shou-En Chiang, **Wei-Ren Liu**,* Sheng Hsiung Chang,* "Stable and high-efficiency P3CT-Na based $MAPbI_3$ solar cells with a graphene quantum dots upconverter," *Solar Energy*, **225**, 1 (2021) 882-891【IF:5.742】

2020: 22篇

84. Yi-Chen Wu and **Wei-Ren Liu*** "Few-layered $MoSe_2$ ultrathin nanosheets as anode materials for lithium ion batteries," *J. Alloys and Compounds*, **831**, 152074 (2020).【IF:4.650】

85. Chia-Hung Chao, Wan-Chi Ni, Chun-Ting Chen, Bor Kae Chang, Chia-Hung Huang, Cherng-Yuh Su* and **Wei-Ren Liu,*** "Synthesis, Luminescence Properties and Theoretical Calculations of $La_5BSi_2O_{13}:Dy^{3+}$ Phosphor Coatings for Light-emitting Dioses," *Thin Solid Film*, **698**, 137865 (2020).【IF:2.030】

86. Tse Chiang Huang, Yu-Cheng Liu, Chia-Her Lin, **Wei-Ren Liu,*** Kuo-Lun Tung* "Fabrication of Pebax-1657-based Mixed Matrix Membranes Incorporating N-doped Few-Layer Graphene for Carbon Dioxide Capture Enhancement," *J. Membrane Science*, **602**, 117946 (2020)【IF:7.183】

87. Diwakar Karuppiah, Rajkumar Palanisamy, Arjunan Ponnaiah, **Wei-Ren Liu**, Chia-Hung Huang, Rengapillai Subadevi* and Sivakumar Marimuthu,* "Eggshell Membrane-Derived Carbon Coated On Li_2FeSiO_4 Cathode Material for Li-Ion Batteries," *Energies*, **13**, 786 (2020). 【IF:2.702】

88. Arjunan Ponnaiah, Kouthaman Mathiyalagan, Subadevi Rengapillai,* Diwakar Karuppiah, **Wei-Ren Liu**, Chia-Hung Huang and Sivakumar Marimuthu,* "Superior Ionic Transferring Polymer with Silicon dioxide composite Membrane via Phase Inversion Method designed for High Performance Sodium-Ion Battery," *Polymers*, **12**, E405 (2020).【IF:3.426】

89. Yu-Ching Hsu, Cheng-Che Hsieh and **Wei-Ren Liu,*** "Synthesis of double core-shell carbon/silicon/graphite composite anode materials for lithium-ion batteries," *Surface & Coatings Technology*, **387**, 125528 (2020).【IF:3.784】

90. Rasu Muruganantham, Jeng-Shin Lu and **Wei-Ren Liu,*** "Spinel rGO wrapped CoV_2O_4 nanocomposite as a novel anode material for sodium-ion batteries," *Polymers*, **12**, 555 (2020). 【IF:3.426】

91. Rasu Muruganantham, Jeng-Shin Lu and **Wei-Ren Liu,*** "Modification of spinel-based CoV_2O_4 materials through Mn substitution as a potential anode material for Li-ion storage," *Surface & Coatings Technology*, **389**, 125602 (2020).【IF:3.784】

92. Cheng-Che Hsieh and **Wei-Ren Liu,*** "Carbon-coated Si particles binding with few-layered graphene via a liquid exfoliation process as potential anode materials for lithium-ion batteries," *Surface & Coatings Technology*, **387**, 125553 (2020).【IF:3.784】

93. Ting-Hao Hsu and **Wei-Ren Liu,*** "Effects of graphene nanosheets with different lateral sizes as conductive additives on the electrochemical performance of $LiNi_{0.5}Co_{0.2}Mn_{0.3}O_2$ cathode materials for Li ion batteries," *Polymers*, **12**, 1162 (2020).【IF:3.426】

94. Pei-Yi Yen, Meng-Lun Lee, Duncan H. Gregory* and **Wei-Ren Liu*** "Optimization of Sintering Process on $Li_{1+x}Al_xTi_{2-x}(PO_4)_3$ Solid Electrolytes for All-Solid-State Lithium-ion Batteries," *Ceramics International*, **46**, 12, 20529-20536 (2020).【IF:3.830】

95. Rasu Muruganantham, Irish Valerie B. Maggay, Jun-Ying Huang, Yan-Gu Lin, Chun-Chuen Yang and **Wei-Ren Liu,*** "Tailoring the mesoporous $ZnMn_2O_4$ spheres as anode materials with excellent cycle stability for sodium-ion batteries," *J. Alloys and Compounds*, **844**, 156018 (2020).【IF:4.650】

96. Cheng-Che Hsieh and **Wei-Ren Liu**,* "Carbon-coated porous Si/C composite anode materials via two-step etching/coating processes for lithium-ion batteries," *Ceramics International*, **46**, 17, 26598-26607 (2020).【IF:3.830】

97. Gang Yuan, Weicai Zhang, Huimin Li, Yingjun Xie, Hang Hu, Yong Xiao, Yeru Liang, Yingliang Liu, **Wei-Ren Liu**, Mingtao Zheng, "Non-Tubular-Biomass-Derived Nitrogen-Doped Carbon Microtubes for Ultrahigh-Area-Capacity Lithium-ion Batteries," *Journal of Colloid & Interface Science*, **580**, 15, 638-644. (2020).【IF:7.489】

98. Wei-Cheng Cheng, Yi-Ting Hsieh and **Wei-Ren Liu**,* "Enhanced thermal conductivity of silicone composites filled with few-layered hexagonal boron nitride," *Polymers*, 12, 2072 (2020).【IF:3.426】

99. Liqiang Zhang, Hang Lin,* Congyong Wang, **Wei-Ren Liu**, Shuxing Li, Yao Cheng, Ju Xu, Hang Gao, Kang Li, Nigel Copner, Xueyuan Chen and Yuansheng Wang,* "A solid-state colorimetric fluorescence Pb^{2+}-sensing scheme: mechanically-driven $CsPbBr_3$ nanocrystallization in glass**,**" *Nanoscale*, 12, 8801-8808 (2020).【IF:6.895】

100. Hsiu-Ying Huang, Maria Jessabel Talite, Kun-Bin Cai, Ruth Jeane Soebroto, Sheng-Hsiung Chang, **Wei-Ren Liu**, Wu-Ching Chou* and Chi-Tsu Yuan,* "Utilizing Host-Guest Interaction Enables the Simultaneous Enhancement of the Quantum Yield and Stokes Shift in Organosilane-Functionalized, Nitrogen-Containing Carbon Dots for Laminated Luminescent Solar Concentrators," *Nanoscale*, **12**, 23537-23545 (2020)【IF:6.895】

101. Rasu Muruganantham, Jeng-Shin Lu, Bor Kae Chang, Po Kai Wang, and **Wei-Ren Liu**,* "Electrochemical Elucidation of $Co_{0.5}M_{0.5}V_2O_4$ (M= Fe, Zn) Nanocomposite Anode Materials for Li-ion Storage," *Materials Chemistry Frontier*, 4, 3349-3360 (2020) 【IF: 6.788】

102. Yi-Ting Hsieh, Yi-Feng Lin,* and **Wei-Ren Liu**,* "Enhancing the Water Resistance and Stability of $CsPbBr_3$ Perovskite Quantum Dots for Light-Emitting-Diode Applications through Encapsulation in Waterproof Polymethylsilsesquioxane Aerogels," *ACS Applied Materials & Interfaces*, 12, 5 (2020) 58049-58059【IF:8.758】 Front cover

103. K. Chelladurai, P. Venkatachalam, S. Rengapillai, **W. R. Liu**, C. H. Huang, M. Sivakumar,* "Effect of

Polyaniline on Sulfur/Sepiolite Composite Cathode for Lithium-Sulfur Batteries," *Polymers*, 12, 4, (2020) 755 【IF:3.426】

104. Arjunan Ponnaiah, Subadevi Rengapillai,* Diwakar Karuppiah, Sivakumar Marimuthu,* **Wei-Ren Liu**, Chia-Hung Huang, "High Capacity Prismatic Type Layered Electrode with Anionic Redox Activity as an Efficient Cathode Material and PVdF/SiO_2 Composite Membrane for a Sodium Ion Battery," *Polymers*, **12**, 3 (2020) 662. 【IF:3.426】

105. Diwakar Karuppiah, Rajkumar Palanisamy, Subadevi Rengapillai,* **Wei-Ren Liu**, Huang, Chia-Hung Huang and Sivakumar Marimuthu,* "Carbon Loaded Nano-Designed Spherically High Symmetric Lithium Iron Orthosilicate Cathode Materials for Lithium Secondary Batteries," *Polymers*, **11**, 10 (2020) 1703. 【IF:3.426】

2019: 18篇

106. Jy-Chern Chang, Chun-Ting Chen, Mikhail G. Brik, Michal Piasecki, and **Wei-Ren Liu**,* "$La_6Ba_4Si_6O_{24}F_2:Sm^{3+}$ novel red-emitting phosphors: Synthesis, photoluminescence and theoretical calculations," *J. Lumin.,* **206***,* 417-425 (2019).【IF:2.732】

107. Yen-Yu Yeh, Wei-Hung Chiang and **Wei-Ren Liu***, "Synthesis of few-layer WS_2 by jet cavitation as anode material for lithium ion batteries," *J. Alloys and Compounds*, **775**, 1251-1258 (2019).【IF:3.779】

108. Jun-Ying Huang and **Wei-Ren Liu,*** "Synthesis and characterizations of $CoCr_2O_4$/C composite using high energy ball-milling technique as novel anode materials for Li-ion batteries," *J. Taiwan Inst. Chem. E.* **96**, 205-213 (2019).【IF:4.217】

109. Jhao-Yi Wu, Yi-Chin Lai, Chien-Liang Chang, Wu-Ching Hung, Hsiao-Min Wu, Ying-Chih Liao* and **Wei-Ren Liu,*** "Facile and Green Synthesis of Graphene-based Conductive Adhesives via Liquid Exfoliation Process," *Nanomaterials*, **9**, 1, 38 (2019).【IF:3.504】

110. Pei-Chi Cheng, Bing-Han Li, Feng-Shuen Tseng, Po-Ching Liang, Chia-Her Lin,* and **Wei-Ren Liu**,* "Synthesis, Structures and Electrochemical Properties of Lithium 1,3,5-Benzenetricarboxylate Complexes as Anode Materials for Li-ion Battery," *Polymers*, **11**, 1, 126 (2019).【IF:2.935】

111. Shing-Yu Tsai, Rasu Muruganantham, Shih-Hsuan Tai, Bor Kae Chang, Shu-Chi Wu, Yu-Lun Chueh* and **Wei-Ren Liu,*** "Coffee grounds-derived carbon as high performance anode materials for energy storage applications," *J. Taiwan Inst. Chem. E.*, **97**, 178-188 (2019).【IF:4.217】

112. Yuanyuan Zhang, Lefu Mei, Haikun Liu, Jy-Chern Chang, **Wei-Ren Liu**, Zhaohui Huang, "Thermal-stable and high-efficient orange-red emitting orthosilicate phosphors $LiGd_9(SiO_4)_6O_2:Mn^{2+}$ for *n*-UV-based *w*-LEDs," *Materials Chemistry and Physics,* **228**, 215-220 (2019). 【IF:2.210】

113. Cheng-Yi Lin and **Wei-Ren Liu**,* "Synthesis and characterizations of graphene-based composite film for thermal dissipation," *J. Alloys and Compounds,* **790**, 156-162 (2019).【IF:3.779】

114. Yu Zhang, Xuejie Zhang,* Haoran Zhang, Zhan-Chao Wu, Yingliang Liu, Li Ma, Xiaojun Wang, **Wei-Ren Liu** and Bingfu Lei,* "Enhanced Absorption of $Sr_3Lu_2(BO_3)_4:Ce^{3+},Tb^{3+}$ Phosphor with Energy Transfer for UV-Pumped White LEDs," *J. Alloys and Compounds,* **789**, 15, 215-220 (2019).【IF:3.779】

115. Cheng-Che Hsieh and **Wei-Ren Liu,*** "Effects of nitrogen doping on Si/carbon composite anode derived from Si wastes as potential active materials for Li ion batteries," *J. Alloys and Compounds,* **790**, 829-836 (2019).【IF:3.779】

116. Chih-Wei Lei, Meng-Lin Hsieh and **Wei-Ren Liu**,* "A facile approach to synthesize carbon quantum dots with pH-dependent properties," *Dyes and Pigments*, **169**, 73-90, (2019). 【IF:3.767】

117. Chang Liu, Bing-Hong Chen, Shang-I Chuang, Wei-Ting Wong, **Wei-Ren Liu*** and Jenq-Gong Duh,* "Synthesis and theoretical calculations of N-doped $ZnCo_2O_4$ anode for lithium-ion anode via gradient pressure-induced processes and theoretical calculations," *J. Alloys and Compounds*, **797**, 15, 978-985 (2019). 【IF:3.779】

118. W. F. Ji, K. Y. Chen, C. J. Ke, Y. J. Liao, **W. J. Liu**, M. H. Tsai, J. M. Yeh,* "Comparative corrosion protection studies of electroactive/non-electroactive epoxy thermoset composites containing conductive rGO/non-conductive GO platelets," *eXPRESS Polymer Letters,* **13**, 7 604-617 (2019).【IF:3.064】

119. Rasu Muruganantham, Irish Valerie Buiser Maggay, Lyn Marie Z. De Juan, Mai Thanh Nguyen, Tetsu Yonezawa, Chai Her Lin,* Yan-Gu Lin and **Wei-Ren Liu,*** "Electrochemical exploration of the effects of calcination temperature of a mesoporous zinc vanadate anode material on the performance of Na-ion batteries," ***Inorg. Chem. Front.***,**6**, 2653-2659 (2019).【IF:5.934】(Cover)

120. Rasu Muruganantham, **Wei-Ren Liu**,* Chia-Her Lin*, Michal Piasecki, "Design of meso/macro porous 2D Mn-vanadate as potential novel anode materials for sodium-ion storage," *J. Energy Storage*, **26**, 100915 (2019).【IF:3.517】

121. Rasu Muruganantham, Tzu-Hsien Hsieh, Chia-Her Lin* **Wei-Ren Liu,*** "Bio-oil Derived Hierarchical Porous Hard Carbon from Rubber Wood Sawdust via a Template Fabrication Process as Highly Stable Anode for Sodium-Ion Batteries," *Materials Today Energy*, **14**, 100346 (2019)【IF:5.604】

122. Chia-Hsin Zhang, Chia-Hung Huang and **Wei-Ren Liu*** "Structural Design of Three-Dimensional Graphene/Nano Filler (Al_2O_3, BN, or TiO_2) Resins and Their Application to Electrically Conductive Adhesives," *Polymers*, **11**, 1713 (2019)【IF:3.164】

123. Cheng-Wei Kao, Chun-Chuen Yang, Chin Wei Wang, Shu-Han Zhuang, Yung-Hsiang Tun, Ting-Wei Hsu, Wei-Chun Wu, **Wei-Ren Liu**, and Kuen-Song Lin, "Interplay between magnetic ion and amorphous carbon in $Na_3V_2(PO_4)_3$/C nanocomposite," *AIP Advances* **9**, 035134 (2019)【IF:1.579】

2018: 19篇

124. Yu-Cheng Liu, Nae-Lih Wu and **Wei-Ren Liu**,* "Electrochemical Properties of Al^{3+}/Cl^- Doped-

$0.2Li_2MnO_3 \cdot 0.8LiNiO_2$ Cathode Materials for Lithium-Ion Batteries," *J. Nanosci. Nanotechnol.* **18**, 68-74 (2018). 【IF:1.483】

125. Irish Valerie B. Maggay and **Wei-Ren Liu**,* "Novel Red-emitting $Ba_3Y(BO_3)_3:Bi^{3+}$, Eu^{3+} for N-UV white Light-Emitting Diodes," *J. Nanosci. Nanotechnol.*, **18**, 3-10 (2018). 【IF:1.483】

126. K. Krishnaveni, R. Subadevi, G. Radhika, T. Premkumar, M. Raja, **Wei-Ren Liu*** and M. Sivakumar,* "Carbon Wrapping Effect on Sulfur/Polyacrylonitrile Composite Cathode Materials for Lithium Sulfur Batteries," *J. Nanosci. Nanotechnol.***18**, 121-126 (2018). 【IF:1.483】

127. **Wei-Ren Liu*** and Bingfu Lei, "Flux-Assisted Preparation and Photoluminescence of Emission-tunable $(Sr,Eu)Al_2Si_2O_8$ Phosphors," *J. Nanosci. Nanotechnol.*, **18**, 374-380 (2018). 【IF:1.483】

128. M. Ramachandran, R. Subadevi, **Wei-Ren Liu*** and M. Sivakumar,* "Facile Synthesis and Characterization of ZrO_2 Nanoparticles via Modified Co-Precipitation Method," *J. Nanosci. Nanotechnol.*, **18**, 368-373 (2018). 【IF:1.483】

129. **Wei-Ren Liu**,* "High efficient VUV-excitable $SrSi_2N_2O_2:Eu^{2+}$ green-emitting phosphors synthesized via different pressures," *J. Nanosci. Nanotechnol.,* **18**, 459-462 (2018). 【IF:1.483】

130. R. Dhanalakshmi, K. Diwakar, P. Rajkumar, R. Subadevi, **Wei-Ren Liu*** and M. Sivakumar,* "Structural and Morphological Studies on $Li_2Fe_{0.5}Mn_{0.5}SiO_4$/C Composite Synthesized using PVA for Energy Storage Devices," *J. Nanosci. Nanotechnol*, **18**, 296-300 (2018). 【IF:1.483】

131. R. Muthupradeepa, M. Sivakumar,* R. Subadev, V. Suryanarayanan and **Wei-Ren Liu,*** "Effect of Dispersoid Sulfonium Ionic Liquid Based Gel Polymer Electrolyte for Lithium Secondary Battery," *J. Nanosci. Nanotechnol,***18**, 215-222 (2018). 【IF:1.483】

132. G. Radhika, R. Subadevi, K. Krishnaveni, **Wei-Ren Liu**,* and M. Sivakumar,* "Synthesis and Electrochemical Performance of PEG-MnO_2-Sulfur Composites Cathode Materials for Lithium-Sulfur Batteries," *J. Nanosci. Nanotechnol*, **18**, 127-131 (2018). 【IF:1.483】

133. Hong-Yuan Lian, Saikat Dutta, Satoshi Tominaka, Yu-An Lee, Shu-Yun Huang, Yasuhiro Sakamoto, Chia-Hung Hou, **Wei-Ren Liu**, Joel Henzie, Yusuke Yamauchi, and Kevin C.-W. Wu,* "Curved Fragmented Graphenic Hierarchical Architectures for Extraordinary Charging Capacities," *Small*, 1702054 (2018). 【IF:8.315】

134. Irish Valerie B. Maggay, Kai-Yuan Yeh, Bingfu Lei, Mikhail G. Brik, Michal Piasecki and **Wei-Ren Liu,*** "Luminescence properties of Eu^{2+} - activated $NaCaBeSi_2O_6F$ for white light-emitting diode applications," *Mater. Res. Bull.,* **100**, 26-31 (2018). 【IF:2.446】

135. J. S. Lu, I. V. B. Maggay, and **W. R. Liu**,* "CoV_2O_4: A novel anode material for lithium-ion batteries with excellent electrochemical performance," *ChemComm*., **54**, 3094-3097 (2018). 【IF:6.319】(Back cover)

136. Irish Valerie B. Maggay, Lyn Marie Z. De Juan, Mai Thanh Nguyen, Tetsu Yonezawa,* B. K. Chang, T. S. Chan

and **Wei-Ren Liu,*** "ZnV_2O_4: A potential anode material with excellent stability for Sodium-ion batteries," *J. Taiwan Inst. Chem. E.*, **88**, 161-168 (2018). 【IF:4.217】

137. Jy-Chern Chang, Haikun Liu, Pin-Chun Lin, Tzu-Jen Lin, Lufu Mei, Libing Liao and **Wei-Ren Liu**,* "Intense broad-band absorption and efficient blue-emitting $SrCa_2MgSi_2O_8:Eu^{2+}$ phosphor for high color-rendering white LED Applications," *Mater. Express*, **8**, 254-262 (2018). 【IF:2.062】

138. Irish Valerie B. Maggay, Lyn Marie Z. De Juan, Jheng-Shing Lu, Mai Thanh Nguyen, Tetsu Yonezawa, T. S. Chan and **Wei-Ren Liu*,** "Electrochemical properties of novel FeV_2O_4 as an anode for Na-ion batteries," *Scientific Reports*, **8**, 8839 (2018).【IF:4.259】

139. Lyn Marie Z. De Juan, Irish Valerie B. Maggay, Mai Thanh Nguyen, **Wei-Ren Liu** and Tetsu Yonezawa,* "β-Sn nanorods with Active (001) Tip Induced LiF-Rich SEI Layer for Stable Anode Material in Lithium-ion Battery," *ACS Applied Nano Materials*, **1**, 3509-3519 (2018). 【IF:5.097】

140. Pin-Chun Lin, Jhao-Yi Wu and **Wei-Ren Liu,*** "Green and facile synthesis of few-layer graphene via liquid exfoliation process for Lithium-ion batteries," *Scientific Reports*, **8**, 9766 (2018).【IF:4.259】

141. Rasu Muruganantham, Ping-Chuan Chiang and **Wei-Ren Liu,*** "Copper-diphosphide Composites: A Key Factor Evaluation and Capacity Enhancement Route for High Energy Li-Ion Storage," *ACS Applied Energy Materials*, **1**, 3674-3683 (2018).【IF:4.473】

142. Chun-Ting Chen, Tzu-Jen Lin, Maxim S. Molokeevcde, **Wei-RenLiu**,* "Synthesis, luminescent properties and theoretical calculations of novel orange-red-emitting $Ca_2Y_8(SiO_4)_6O_2:Sm^{3+}$ phosphors for white light-emitting diodes," *Dye and Pigments*, **150** (2018) 121-129.

2017: 13篇

143. Wei-Ting Wong, Bing-Hong Chen, Irish Valerie B. Maggay, Chang Liu, Jenq-Gong Duh and **Wei-Ren Liu*** "Synthesis and Electrochemical Properties of Hierarchically Porous $Zn(Co_{1-x}Mn_x)_2O_4$ Anodes for Li-Ion Batteries," *Energy Technology*, **5**, 9, 1526-1535 (2017).【IF:2.789】

144. Cheng-Che Hsieh and **Wei-Ren Liu*** "Synthesis and characterization of nitrogen-doped graphene nanosheets/copper composite film for thermal dissipation," *Carbon*, **118**, 1-7 (2017).【IF:6.198】

145. Jiankun Deng, Wei Li, Haoran Zhang, YingLiang Liu, Bingfu Lei, Haiming. Zhang, Lingshan Liu, Xue Bai, Haoyang Luo, Hongzhong Liu, **Wei-Ren Liu**, Jing Wang, "Eu^{3+}-Doped Phosphor-in-Glass: a Route toward Tunable Multicolor Materials for Near-UV High-Power Warm-White LEDs," *Adv. Optical Mater.*, **5**, 3, 1600910 (2017).【IF:5.359】

146. Chien-Hao Huang, Chun-Ting Chen, Shaoqian Guo, Jun-Ying Zhang and **Wei-Ren Liu**,* "Luminescence and theoretical calculations of novel red-emitting $NaYPO_4F:Eu^{3+}$ phosphor for LED applications," *J. Alloys and Compds*, **712**, 225-232 (2017).【IF:3.014】

147. Yuan-Kai Xiao, Wei-Fu Ji, Kuei-Sen Chang, Kuei-Ting Hsu, Jui-Ming Yeh* and **Wei-Ren Liu**,* "Sandwich-structured rGO/PVDF/PU composite coatings for anti-corrosion application," *RSC Adv.,* **7**, 33829-33836 (2017). 【IF:3.108】

148. Pin-Chun Lin, Kuei-Ting Hsu,* Ming-Hsiu Shiu and **Wei-Ren Liu**,* "Phellodendron chinense Schneid: A novel yellow-emitting luminescent material for white light-emitting diodes," *Scientific Reports*, **7**, 9009 (2017). 【IF:4.259】

149. Guang-Hao Shih and **Wei-Ren Liu,** * "A Facile Microwave-assisted Approach to the Synthesis of Flower-like $ZnCo_2O_4$ Anode Materials for Li-ion Batteries," *RSC Adv.*, **7**, 42476-42483 (2017).【IF:3.108】

150. Wei Li, Haoran Zhang, Yinjian Zheng, Shi Chen, Yingliang Liu, Jianle Zhuang, **Wei-Ren Liu** and Bingfu Lei, "Multifunctional Carbon Dots for Highly Luminescent Orange-Emissive Cellulose Based Composite Phosphor Construction and Plant Tissue Imaging," *Nanoscale*, **9**, 12976-12983 (2017).【IF:7.367】

151. Rasu Muruganantham and **Wei-Ren Liu**,* "A venture synthesis and fabrication of $BiVO_4$ as a highly stable anode material for Na-ion batteries," *ChemistrySelect*, **2**, 8187-8195. (2017). 【IF:1.716】

152. Rasu Muruganantham, Yi-Tang Chiu, Chun-Chuen Yang, Chin-Wei Wang and **Wei-Ren Liu**,* "An Efficient Evaluation of F-doped Polyanion Cathode Materials with Long Cycle Life for Na-Ion Batteries Applications," *Scientific Reports*, **7**, 14808 (2017).【IF:4.259】

153. Pin-Chun Lin, Yi-Rui Chen, Kuei-Ting Hsu, Tzu-Neng Lin, Kuo-Lun Tung,* Ji-Lin Shen and **Wei-Ren Liu**,* "Nano-sized graphene flakes: insights from experimental synthesis and first principles calculations," *Phys. Chem. Chem. Phys.*, **19**, 6338-6344 (2017).【IF:4.449】

154. Ho-Ming Cheng, Hong-Gen Dai, Fu-Ming Wang, Pi-Chuen Tsai and **Wei-Ren Liu**, "Synthesis and Characterization of Pitch-coated $Li_2Mn_xFe_{1-x}SiO_4$/C Composite Cathode Material for Lithium-Ion Batteries," *Int. J. Electrochem. Sci.*, **12** (2017) 10981-10993.【IF:1.469】

155. Haiming Zhang, Haoran Zhang, Yingliang Liu, Bingfu Lei, Jiankun Deng, **Wei-Ren Liu**, Yuan Zeng, Lingling Zheng, Minyi Zhao, "Color-tunable and highly thermal stable $Sr_2MgAl_{22}O_{36}:Tb^{3+}$ phosphors," *Materials Chemistry and Physics*, **193** (2017) 302-310. 【IF:2.084】

2016: 10篇

156. P. Prahasin, R. Subadevi, Fu-Ming Wang, **Wei-Ren Liu** and M. Sivakumar, "A brannerite type cobalt vanadate conversion anode for lithium batteries," *Ionics*, **22**, 3, 347-356 (2016).【IF:1.754】

157. M. Sivakumar, P. Prahasin, R. Subadevi, **Wei-Ren Liu**, Fu-Ming Wang, and Irish Valerie Buiser Maggay, "A novel attempt for employing brannerite type copper vanadate as an anode for lithium rechargeable batteries," *Journal of Materials Science Materials in Electronics*, **27**, 3292-3297 (2016).【IF:1.569】

158. Kai-Yuan Yeh, Chun-Chuen Yang, **Wei-Ren Liu**,* and M.G. Brik, "Novel blue-emitting phosphors -

$BaBeSiO_4:Eu^{2+}$: Luminescence properties and its application for UV-light emitting diodes," *Optical Materials Express*, **6**, 2, 416-428 (2016).【IF:2.844】

159. Kai-Yuan Yeh and **Wei-Ren Liu**, * "Luminescence properties of $NaCaGaSi_2O_7$:RE, Li^+ (RE = Ce^{3+}, Eu^{3+} or Tb^{3+}) phosphors for UV excitable white light emitting diodes," *Materials Research Bulletin*, **80**, 127-134 (2016).【IF:2.288】

160. Kai-Yuan Yeh, Chia-Her Lin, Irish Valerie Buiser Maggay and **Wei-Ren Liu,*** "Novel Green-Emitting $K_2Ba_5Si_{12}O_{30}:Eu^{2+}$ Phosphors with Excellent Thermal Quenching for White Light-Emitting Diodes," *Optical Materials*, **59**, 8-14 (2016).【IF:1.981】

161. Cheng-Ming Chang, Zh-Hao Hu, Ting-Yin Lee, Yi-An Huang, Wei-Fu Ji, **Wei-Ren Liu**, Jui-Ming Yeh* and Yen Wei, "Biotemplated hierarchical polyaniline composite electrodes with high performance for flexible supercapacitors" *J. Mater. Chem. A*, **4**, 9133-9145 (2016).【IF:8.262】

162. M. Sivakumar, P. Palanichamy, S. Rengapillai, **Wei-Ren Liu** and Fu-Ming Wang, "An efficasy of "nano" in brannerite type CoV_2O_6 conversion electrode for Lithium batteries," *RSC Adv*., **6**, 112813-112818 (2016).【IF: 3.840】

163. Matteo Porta, Mai Thanh Nguyen, Tomoharu Tokunaga, Yohei Ishida, **Wei-Ren Liu** and Tetsu Yonezawa, "Matrix Sputtering into Liquid Mercaptan: From Blue-Emitting Copper Nanoclusters to Red-Emitting Copper Sulfide Nanoclusters," *Langmuir*, **32**, 46, 12159-12165 (2016).【IF: 3.993】

164. Haiming Zhang, Haoran Zhang, **Wei-Ren Liu**, Yingliang Liu, Bingfu Lei, Jiankun Deng, Jinyuan Zhang, Siyuan Yan, Haobin Kuang and Jinda Zang, "Photoluminescence properties and energy transfer between activators at different crystallographic sites in Ce^{3+} doped $Sr_2MgAl_{22}O_{36}$," *Ceramics International*, **42**, 15, 16659-16665 (2016).【IF: 2.758】

165. Ji-Lin Shen,* T. L. Lin, Svette Reina Merden Santiago, Jie-An Zheng, Yu-Chiang Chao, Chi-Tsu Yuan, Chih-Hung Wu, C. A. J. Lin, **Wei-Ren Liu**, Ming-Chiang Cheng, and Wu-Ching Chou, "Enhanced Conversion Efficiency of III-V Triple-junction Solar Cells with Graphene Quantum Dots," *Scientific Reports*, 6, 39163 (2016).【IF: 5.228】

2015: 11篇

166. Kuei-Ting Hsu, Shu-Mei Chang*, Guo-Yuan Li and **Wei-Ren Liu***, "Enhanced luminescence of MEH–PPV through the reduction of chain aggregations by blending 4-cyano-4'-N-heptylbiphenyl," *Journal of Luminescence,* **158**, 447-450. (2015).【IF:2.367】

167. Cheng-Lee Lai, Jung-Tsai Chen, Ywu-Jang Fu, **Wei-Ren Liu**, Yueh-Ru Huang, Shu-Hsien Hung, Wei-Song Hung, Shingjiang Jessie and Kueir-Rarn Lee, "Bio-Inspired Cross-Linking with Borate for Enhancing Gas-Barrier Properties of Poly(vinyl alcohol)/Graphene Oxide Composite Films," *Carbon,* **82**, 513-522 (2015).【IF:5.868】

168. Irish Valerie B. Maggay, Pin-Chun Lin and **Wei-Ren Liu**,* "Investigation of luminescence properties and energy transfer mechanism of $Li_6Lu(BO_3)_3$: Ce^{3+},Tb^{3+} green-emitting phosphors," *RSC Adv.*, **5**, 8, 5591-5597 (2015). 【IF:3.708】

169. Kuei-Ting Hsu, Pin-Chun Lin, Chien-Hao Huang, Shu-Mei Chang* and **Wei-Ren Liu***, "$CaScAlSiO_6$:Eu^{2+}: A novel near-ultraviolet converting blue-emitting phosphor for white light-emitting diodes," *Materials Express*, **5**, 3, 1-5. (2015).【IF:1.720】

170. T. N. Lin, K. H. Chih, C. T. Yuan, J. L. Shen, C. A. J. Liu and **W. R. Liu**, "Laser-ablation production of graphene oxide nanostructure: from ribbons to quantum dots," *Nanoscale*, 7, 2708-2715. (2015).【IF:6.739】

171. Zheng Yang, Pin-Chun Lin, Chong-Feng Guo* and **Wei-Ren Liu,*** "Color-tunable luminescence and energy transfer properties of Eu^{2+}- and Mn^{2+}-activated $BaCa_2MgSi_2O_8$ phosphor for ultraviolet light-emitting diodes," *RSC Adv.*, **5**, 13184-13191 (2015).【IF:3.708】

172. Chun-Chieh Wang, Chia-Hung Huang, Chi-Wen Chu, **Wei-Ren Liu**, Weng-Sing Hwang, Chiu, Sung-Mao Chiu and Chia-Min Wei, "Study on the Corrosion Characteristics of Sputtered Barrier-Free Cu(MoN) Copper Seed Layers," *Nanoscience and Nanotechnology Letters*, **7**, 3 257-265 (2015). 【IF:1.444】

173. Raja Senthil, Duraisamy, Pin-Chun Lin, **Wei-Ren Liu**,* Jun-Xiang Zhan, Xin-Yi Fu and Chia-Her Lin*, "Multidimensional (0D to 3D) Alkaline-Earth Metal Diphosphonates: Synthesis, Structural Diversity, and Luminescence Properties," *Inorganic Chemistry,* **54**, 9, 4268-4278 (2015).【IF:4.794】

174. Ji-Xuan Fu, Wei-Ting Wong and **Wei-Ren Liu**,* "Temperature Effects on Nano-porous $ZnCo_2O_4$ Anode with Excellent Capability for Li-ion Batteries," *RSC Adv.*, **5**, 75838-75845 (2015).【IF:3.840】

175. Bing-Hong Chen, Shang-I Chuang, **Wei-Ren Liu*** and Jenq-Gong Duh,* "A revival of waste: Atmospheric pressure nitrogen plasma jet enhanced jumbo silicon/silicon carbide composite in lithium ion batteries," *ACS Applied Materials & Interfaces*, **7**, 51, 28166-76 (2015).【IF: 6.723】

176. Chung-Hsien Chuang, Ching-Yuan Su, Gui-Ting Xu, Chia-Hsuan Chen, Chia-Hung Huang, Chi-Wen Chu and **Wei-Ren Liu**,* "A green, simple and cost-effective approach to synthesize high quality graphene by electrochemical exfoliation via process optimization," *RSC Adv.*, **5**, 54762-54768 (2015).【IF:3.840】

2014: 17篇

177. Wei-Song Hung, Quan-Fu An, Manuel De Guzman, Hsin-Yi Lin, Shu-Hsien Huang, **Wei-Ren Liu**, Chien-Chieh Hu, Kueir-Rarn Lee and Juin-Yih Lai, "Pressure-assisted self-assembly technique for fabricating composite membranes consisting of highly ordered selective laminate layers of amphiphilic graphene oxide," *Carbon*, **68**, 670-677 (2014).【IF: 5.868】

178. Kung-Chin Chang, Wei-Fu Ji, Mei-Chun Lai, You-Rong Hsiao, Chien-Hua Hsu, Tsao-Li Chuang, Yen Wei, Jui-Ming Yeh and **Wei-Ren Liu**,* "Synergistic effects of hydrophobicity and gas barrier properties on the anticorrosion properties of the anticorrosion property of PMMA nanocomposite coatings embedded with

graphene nanosheets," *Polymer Chemistry*, **5**, 1049-1056 (2014).【IF: 5.231】

179. Chien-Hao Huang, Li-Yang Luo, Yao-Tsung Yeh, Shyue-Ming Jang and **Wei-Ren Liu**,* "Novel red-emitting garnet $Na_2CaTi_2Ge_3O_{12}:Pr^{3+},Na^{+}$ phosphors," *RSC Advances*, **4**, 5513-5517 (2014). 【IF: 2.562】

180. Chien-Hao Huang, Yuan-Tai Lai, Ting-Shan Chan, Yao-Tsung Yeh and **Wei-Ren Liu**,* "A novel green-emitting $SrCaSiAl_2O_7:Eu^{2+}$ phosphors," *RSC Advances*, **4**, 7811-7817 (2014).【IF: 2.562】

181. Kung–Chin Chang, Min-Hsiang Hsu, Hsin-I Lu, Mei-Chun Lai, Pei-Ju Liu, Chien-Hua Hsu, Wei-Fu Ji, Tsao-Li Chung, Yen Wei, Jui-Ming Yeh and **Wei-Ren Liu**, "Room-temperature cured hydrophobic epoxy/graphene composites as corrosion inhibitor for cold-rolled steel," *Carbon*, **66**, 144-153 (2014).【IF: 5.868】

182. **Wei-Ren Liu*** and Pin-Chun Lin, "A study on luminescence properties and energy transfer mechanism for $NaCaY(PO_4)_2:Eu^{2+},Mn^{2+}$ phosphors for LED applications," *Optics Express*, **22**, S2, 446-451(2014).【IF: 3.546】

183. Chien-Hao Huang, **Wei-Ren Liu**, Ting-Shan Chan and Yuan-Tai Lai, "Orangish-yellow-emitting $Ca_3Si_2O_7:Eu^{2+}$ phosphor for application in blue-light based warm-white LEDs," *Dalton Transactions*, **43**, 21, 7917-7923 (2014). 【IF: 3.806】

184. K. C. Chang, C. H. Hsu, H. I. Lu, W. F. Ji, C. H. Chang, W. Y. Li, T. L. Chuang, J. M. Yeh, **W. R. Liu** and M. H. Tsai, "Advanced anticorrosive coatings prepared from electroactive polyimide/graphene nanocomposites with synergistic effects of redox catalytic capability and gas barrier properties," *Express Polymer Letters*, 8, 4, 243-255 (2014).【IF: 2.294】

185. Xin-Quan Liao and **Wei-Ren Liu**,* "Process-optimization for synthesizing graphene nanosheets as anode materials for Li-ion batteries," *Journal of Technology*, **29**, 3 213-220 (2014).

186. Chien-Hua Hsu, Min-Hsiang Hsu, Kung-Chin Chang, Mei-Chun Lai, Pei-Ju Liu, Tao-Li Chuang, Jui-Ming Yeh* and **Wei-Ren Liu,*** "Physical Study of Room-temperature-cured Epoxy/Thermally Reduced Graphene Oxides (TRGs) with Various Contents of Oxygen-containing Groups," *Polymer International*, **63**, 1765-1770. (2014) 【IF:2.247】

187. Chien-Hao Huang,*Yi-Chen Chiu, **Wei-Ren Liu,***"$Ca_3Si_2O_4N_2:Ce^{3+},Li^{+}$ silicon oxynitride phosphor for generating white light-emitting diodes with excellent color rendering index," *European Journal of Inorganic Chemistry,* 3674-3680 (2014).【IF:2.965】

188. M. Ramachandran, R. Subadevi, Fu-Ming Wang, **Wei-Ren Liu** and M. Sivakumar, "Structural, morphology and ionic conductivity studies on composite P(S-MMA)-ZrO_2 Polymer electrolyte for Lithium Polymer battery," *International Journal of ChemTech Research*, 6, 3, 1687-1689 (2014).

189. Wei-Fu Ji, Kung-Chin Chang, Mei-Chun Lai, Chih-Wei Li, Sheng-Chieh Hsu, Tsao-Li Chuang, Jui-Ming Yeh* and **Wei-Ren Liu**,* "Preparation and comparison of the physical properties of PMMA/thermally reduced graphene oxides composites with different carboxylic group content of thermally reduced graphene oxides," *Composites Part A: Applied Science and Manufacturing*, **65**, 108-114 (2014).【IF: 3.012】

190. Kung-Chin Chang, Wei-Fu Ji, Chih-Wei Li, C. H. Chang, Tsao-Li Chuang, Jui-Ming Yeh* and **Wei-Ren Liu**,* "The effect of varying carboxylic group content in reduced graphene oxides on the anticorrosive properties of PMMA/reduced graphene oxide composites," *eXPRESS Polymer Letters*, 8, 12, 908-919 (2014).【IF:2.294】

191. Kung-Chin Chang, Hsin-I Lu, Mei-Chun Lai, Chien-Hua Hsu, You-Rong Hsiao, Kuan-Yeh Huang, Tsao-Li Chung, Jui-Ming Yeh and **Wei-Ren Liu***, "Enhancement of physical properties of electroactive polyimide nanocomposites by addition of graphene nanosheets," *Polymer International*, **63**, 1011-1017.(2014)【IF:2.247】

192. Irish Valerie B. Maggay, Pin-Chun Lin and **Wei-Ren Liu**,* "Enhanced luminescence intensity of novel red-emitting phosphor – $Sr_3Lu_2(BO_3)_4:Bi^{3+},Eu^{3+}$ via energy transfer," *Journal of Solid State Lighting,* 1, 13 (2014).

193. Pin-Chun Lin, Chien-Hao Huang and **Wei-Ren Liu**,* "An efficient nitridation approach to enhance luminescent intensity of YAG:Ce^{3+} phosphor by using hexamethylenetetramine," *Journal of Ceramic Processing Research,* 15, 3, 185-188. (2014).【IF:0.349】

2013: 5篇

194. Pei-Chi Cheng, Wei-Cheng Lin, Feng-Shuen Tseng, Ching-Che Kao, Ting-Guang Chang, Duraisamy Senthil Raja, **Wei-Ren Liu,*** and Chia-Her Lin, "Syntheses, structures, and properties of multidimensional lithium coordination polymers based on aliphatic carboxylic acids," *Dalton Transactions*, 42 (2013) 2765-2772.【IF: 3.838】

195. Shin-Liang Kuo, **Wei-Ren Liu,*** Chia-Pang Kuo, Nae-Lih Wu, and Hung-Chun Wu, "Lithium storage in reduced graphene oxides," *J. Power Sources*, **244**, 552-556 (2013).【IF: 4.951】

196. Tai-Feng Hung, Meng-Hsiu Tu, Chi-Wen Tsai, Chih-Jung Chen, Ru-Shi Liu, **Wei-Ren Liu,** and Man-Yin Lo, "Influence of pyrolysis temperature on oxygen reduction reaction activity of carbon-incorporating iron nitride/nitrogen-doped graphene nanosheets catalyst," *Int. J. Hydrogen Energy*, **38**, 10, 1, 3956-3962 (2013).【IF: 4.054】

197. **Wei-Ren Liu,*** Chien-Hao Huang, Chiao-Wen Yeh, Yi-Chen Chiu, Yao-Tsung Yeh and Ru-Shi Liu, "Single-phased White-light-emitting $KCaGd(PO_4)_2:Eu^{2+},Tb^{3+}$, Mn^{2+} Phosphors for LED Applications," *RSC Advances*, **3**, 9023-9028 (2013).【IF: 2.562】

198. Chin-Shu Cheng, **Wei-Ren Liu** and Fu-Ming Wang, "A novel ionic host solid electrolyte interface formation on reduced graphene oxide of lithium ion battery," *Electrochimica Acta*, **106**, 425-431 (2013).【IF: 3.777】

2012: 6篇

199. Jen-You Chu, Wei-Sheng Hsu, **Wei-Ren Liu**, Hung-Min Lin, Hsin-Ming Cheng, and Li-Jiaun Lin, "A Novel Inspection for Deformation Phenomenon of Reduced-graphene Oxide via Quantitative Nano-mechanical Atomic Force Microscopy," *Procedia Engineering*, **36**, 571-577 (2012).

200. Shin-Liang Kuo, **Wei-Ren Liu,*** and Hung-Chun Wu, "Lithium Storage Behavior of Graphene Nanosheets-

based Materials," *Journal of the Chinese Chemical Society*, **59**, 10, 1220-1225 (2012).【IF: 0.678】

201. Pei-Chi Cheng, Feng-Shuen Tseng, Chun-Ting Yeh, Ching-Che Kao, Chia-Her Lin, * **Wei-Ren Liu,** * Jenn-Shing Chen* and Vítězslav Zima, "Synthesis, structures, and properties of alkali and alkaline earth coordination polymers based on V-shaped ligand," *Crystal Eng. Comm.*, **14**, 6812-6822 (2012).【IF: 3.842】

202. **Wei-Ren Liu**,* Chien-Hao Huang, Jen-Ching Tsai, Yi-Chen Chiu, Yao-Tsung Yeh and Ru-Shi Liu,* "A study on the luminescence and energy transfer of single-phase and color-tunable $KCaY(PO_4)_2:Eu^{2+},Mn^{2+}$ phosphor for application in white-light LEDs," *Inorganic Chemistry*, **51**, 9636-9641 (2012).【IF: 4.601】**Top 20 Articles, in the Domain of Article 22920038, Since 2012.**

203. Chien-Hao Huang, Ting-Shan Chan, **Wei-Ren Liu**, De-Yin Wang, Yi-Chen Chiu, Yao-Tsung Yeh and Teng-Ming Chen, "Crystal structure and blue-white-yellow color-tunable $Ca_4Si_2O_7F_2:Eu^{2+},Mn^{2+}$ phosphor through energy transfer for single-phase white-light near-ultraviolet LEDs," *Journal of Materials Chemistry*, **22**, 20210-20216 (2012).【IF: 5.968】

204. Yi-Chen Chiu, **Wei-Ren Liu**,* Chien-Hao Huang, Yao-Tsung Yeh and Shyue-Ming Jang, "Luminescence properties, crystal structure and LED package of potential blue-emitting phosphors - $Ca_2BN_2F:Eu^{2+}$," *Optics Express*, 20, 25, 27361-27366 (2012).【IF: 3.587】

2011: 9篇

205. **Wei-Ren Liu**,* Chiao Wen Yeh, Chien-Hao Huang, Chun Che Lin**,** Yi-Chen Chiu, Yao-Tsung Yeh, and Ru-Shi Liu, "$(Ba,Sr)Y_2Si_2Al_2O_2N_5:Eu^{2+}$: A Novel Near-ultraviolet Converting Green Phosphor for White Light-emitting Diodes," *J. Mater. Chem.*, **21**, 3740-3744 (2011).【IF: 5.099】

206. **Wei-Ren Liu**,* Chien-Hao Huang, Chih-Pin Wu, Yi-Chen Chiu, Yao-Tsung Yeh, and Teng-Ming Chen, "High Efficiency and High Color Purity Blue-emitting $NaSrBO_3:Ce^{3+}$ Phosphor for Near-UV Light-emitting Diodes," *J. Mater. Chem.*, **21**, 6869-6874 (2011).【IF: 5.099】

207. Chien-Hao Huang, **Wei-Ren Liu,*** Te-Wen Kuo and Teng-Ming Chen, "A Study on the Luminescence and Energy Transfer of Green-Emitting $Ca_9Y(PO_4)_7:Ce^{3+},Tb^{3+}$ Phosphor for Fluorescent Lamp Application," *Canadian Centre of Academic Art and Science*, **1**, 9-15 (2011).

208. En-Chen Chen, Cheng-Yang Shih, Ming-Zhi Dai, Han-Cheng Yeh, Yu-Chiang Chao, Hsin-Fei Meng, Hsiao-Wen Zan, **Wei-Ren Liu**, Yi-Chen Chiu, Yao-Tsung Yeh, Chien-Jen Sun, Sheng-Fu Horng and Chain-Shu Hsu, "Polymer infrared proximity sensor array," *IEEE T. Electron Dev.*, **58**, 4, 1215-1220 (2011).【IF: 2.445】

209. Yi-Chen Chiu, **Wei-Ren Liu**, Yao-Tsung Yeh, Shyue-Ming Jang, and Teng-Ming Chen, "Synthesis and Luminescence Properties of Tb^{3+}-activated Silicate Oxyapatite Phosphor," *Journal of Chemistry and Chemical Engineering*, **5**, 9, (2011).

210. **Wei-Ren Liu**, Chun Che Lin, Yi-Chen Chiu, Yao-Tsung Yeh, Shyue-Ming Jang and Ru-Shi Liu, "Luminescence Properties of Green-emitting Phosphors - $Sr_4Al_{14}O_{25}:Eu^{2+}$ for LED Applications," *Journal of Chemistry and*

Chemical Engineering, **5**, 7, (2011).

211. Yi-Chen Chiu, Chien-Hao Huang, Te-Ju Li, **Wei-Ren Liu**, Yao-Tsung Yeh, Shyue-Ming Jang and Ru-Shi Liu, "Eu^{2+}-Activated Silicon-Oxynitride $Ca_3Si_2O_4N_2$: A Green-emitting Phosphor for White LEDs," *Optics Express*, **19**, 3, A331-A339 (2011).【IF: 3.753】

212. **Wei-Ren Liu**, Shin-Liang Kuo, Chia-Yi Lin, Yi-Chen Chiu, Ching-Yi Su, Hung-Chun Wu and Chien-Te Hsieh, "Characterization and electrochemical behavior of graphene-based anode for Li-ion batteries," *The Open Materials Science Journal*, **5**, 236-241 (2011). (EI)

213. Chi-Wen Tsai, Meng-Hsiu Tu, Chih-Jung Chen, Tai-Feng Hung, Ru-Shi Liu, **Wei-Ren Liu**, Man-Yin Lo, Yu-Min Peng, Lei Zhang, Jiujun Zhang, D. S. Shy, and X. K. Xing, "Nonprecious Iron Nitride Nanoparticles Supported on Nitrogen Doped Graphene Nanosheets as Efficient Electrocatalyst of Oxygen Reduction Reaction in Fuel Cells," *RSC Advances*, 1, 1349-1357 (2011).【IF: 2.562】

2010: 7篇

214. Yi-Chen Chiu, **Wei-Ren Liu,*** Chun-Kuei Chang, Jen-Chuen Liao, Yao-Tsung Yeh, Shyue-Ming Jang, and Teng-Ming Chen, "$Ca_2PO_4Cl:Eu^{2+}$: An intense near-ultraviolet converting blue phosphor for white light-emitting diodes," **20**, 1755-1758, *Journal of Materials Chemistry* (2010).【IF: 4.339】

215. **Wei-Ren Liu**, Chun Che Lin, Yi-Chen Chiu, Yao-Tsung Yeh, Shyue-Ming Jang, and Ru-Shi Liu, "A novel red-emitting phosphor $ZnB_2O_4:Bi^{3+},Eu^{3+}$," *Optics Express,* **18**, 3, 2946-2951, (2010).【IF: 3.880】

216. Chien-Hao Huang, Teng-Ming Chen, **Wei-Ren Liu**, Yi-Chen Chiu, Yao-Tsung Yeh, and Shyue-Ming Jang, "A Single-Phased Emission-Tunable Phosphor $Ca_9Y(PO_4)_7:Eu^{2+},Mn^{2+}$ with Efficient Energy Transfer for White-Light-Emitting Diodes," *ACS Applied Materials & Interfaces*, **1**, 2, 259-264 (2010).【IF: 2.925】

217. Te-Wen Kuo, **Wei-Ren Liu** and Teng-Ming Chen, ""Energy Express" Emission Color Variation of $(Ba,Sr)_3BP_3O_{12}:Eu^{2+}$ Phosphors for White Light LEDs," **18**, 3, 1888- 1897, *Optics Express* (2010).【IF: 3.880】

218. Te-Wen Kuo, **Wei-Ren Liu** and Teng-Ming Chen, "High color rendering white light-emitting-diode illuminator using the red-emitting Eu^{2+}-activated CaZnOS phosphors excited by blue LED," *Optics Express*, **18**, 8, 8187-8192 (2010).【IF: 3.880】

219. Chien-Hao Huang, **Wei-Ren Liu,*** and Teng-Ming Chen, "Single-phased white-light phosphors $Ca_9Gd(PO_4)_7:Eu^{2+},Mn^{2+}$ under near-ultraviolet excitation," *Journal of Physics Chemistry C*, **114**, 18698-18701 (2010).【IF: 4.224】

220. Yi-Chen Chiu, **Wei-Ren Liu**, Chun-Kuei Chang, Cheng-Chun Liao, Yao-Tsung Yeh, Shyue-Ming Jang and Teng-Ming Chen, "Intense blue-emitting $Ca_2PO_4Cl:Eu^{2+}$ phosphor for near-ultraviolet converting white light-emitting diodes," *Journal of Rare Earth*, **28**, 1 (2010) .【IF: 0.572】

2009: 6篇

221. Pei-Ci Jhang, Ya-Ching Yang, Yi-Chun Lai, **Wei-Ren Liu**, and Sue-Lein Wang, "All-Inclusive Yellow-Green Phosphors with Prototype Nanotubules from Green Eutectic Solvent," *Angew. Chem. Int. Edit*. **48**, 4, 742-745(2009).【IF: 10.031】

222. **Wei-Ren Liu**, Yi-Chen Chiu, Yao-Tsung Yeh, Shyue-Ming Jang and Teng-Ming Chen, "Luminescence and Energy Transfer Mechanism in $Ca_{10}K(PO_4)_7$:Eu^{2+},Mn^{2+} Phosphor," *Journal of The Electrochemical Society*, **156** (7) J165-J169 (2009).【IF: 2.483】

223. Yi-Chen Chiu, **Wei-Ren Liu**, Yao-Tsung Yeh, Shyue-Ming Jang and Teng-Ming Chen, "The luminescence properties and $Ce^{3+} \rightarrow Tb^{3+}$ energy transfer of $Ca_3Y_2(Si_3O_9)_2$," *ECS Transactions*, **25** (9) 157-162 (2009).

224. Yi-Chen Chiu, **Wei-Ren Liu**, Yao-Tsung Yeh, Shyue-Ming Jang and Teng-Ming Chen, "Luminescence Properties and Energy Transfer of Green-Emitting $Ca_3Y_2(Si_3O_9)_2$:Ce^{3+},Tb^{3+} Phosphor," *Journal of The Electrochemical Society*, **156** (8) J221-J225 (2009).【IF: 2.483】

225. **Wei-Ren Liu**, Chun Che Lin, Yi-Chen Chiu, Yao-Tsung Yeh, Shyue-Ming Jang, Bing-Ming Cheng, and Ru-Shi Liu, "Studying $BaY_2Si_3O_{10}$:RE (RE = Ce^{3+}, Tb^{3+}, Eu^{3+}) phosphors for plasma display panel and ultraviolet light-emitting diodes," *Optics Express*, **17**, 20, 18103-18109. (2009)【IF: 3.880】

226. **Wei-Ren Liu**, Yu-Chan Yen, Hung-Chun Wu, Martin Winter, Nae-Lih Wu, "Nano-porous SiO/Carbon Composite Anode for Lithium-ion Batteries," *J. Appl. Electrochem.* **39**, 9 1643-1649 (2009).【IF: 1.417】

2008: 1篇

227. **Wei-Ren Liu**, Yi-Chen Chiu, Chien-Yueh Tung, Yao-Tsung Yeh, Shyue-Ming Jang and Teng-Ming Chen, "A Study on the Luminescence Properties of $CaAlBO_4$:RE^{3+} (RE = Ce, Tb, and Eu) Phosphors," *Journal of The Electrochemical Society*, **155** (9) J252-J255 (2008).【IF: 2.483】

2007: 2篇

228. **Wei-Ren Liu**, Nae-Lih Wu, Deng-Tswen Shieh, Hung-Chun Wu, Mo-Hua Yang, Christiane Korepp, J. O. Besenhard, and Martin Winter," Synthesis and Characterization of Nanoporous NiSi-Si Composite Anode for Lithium-Ion Batteries," *Journal of The Electrochemical Society*, **154** (2), (2007) A97-A102.【IF: 2.483】

229. D. T. Shieh, M. H. Yang, Z. Z. Guo, P. S. Hsish, S. Tsao, M. W. Lin, **W. R. Liu** and N. L. Wu, "Structure effect of Si-based powder on cycle performance of lithium ion battery," *ECS Transactions*, **3**, 27 (2007) 3-13.

2005: 3篇

230. **Wei-Ren Liu**, Zheng-Zao Guo, Deng-Tswen Shieh, Hung-Chun Wu, Mo-Hua Yang, Nae-Lih Wu, "Enhanced cycle life of Si anode by electrode engineering," *Journal of Power Sources*, **140** (2005) 139–144.【IF: 3.477】

231. **Wei-Ren Liu**, Mo-Hua Yang, Hung-Chun Wu, S. M. Chiao and Nae-Lih Wu, "Enhanced Cycle Life of Si Anode for Li-Ion Batteries by Using Modified Elastomeric Binder," *Electrochemical and Solid-State Letters*, **8** (2) (2005) A100-A103.【IF: 2.109】

232. **Wei-Ren Liu**, Jen-Hao Wang, Hung-Chun Wu, Deng-Tswen Shieh, Mo-Hua Yang and Nae-Lih Wu, "Electrochemical Characterizations on Si and C-coated Si Particulate Electrodes for Lithium Ion Battery," *Journal of The Electrochemical Society*, **152** (9), (2005) A1719-A1725.【IF: 2.483】

2003: 1篇

233. Nae-Lih Wu, **Wei-Ren Liu** and Sern-Jei Su, "Effect of oxygenation on electrocatalysis of $La_{0.6}Ca_{0.4}CoO_{3-x}$ in bifunctional air electrode," *Electrochimica Acta*, 48 (2003) 1567-1571.【IF: 2.848】