

# Renjie Li (李人杰)

Male, Chinese, May/1993

Tel: +852-69903910

Email: renjie4ever.li@connect.polyu.hk

## REPRESENTATIVE PUBLICATIONS:

1. **Renjie Li**, Youngsu Lee, Huijun Lin, Xiangli Che, Xiangjun Pu, Yuyang Yi, Feiyang Chen, Jingya Yu, Kang Cheung Chan, Kyu-Young Park, Zheng-Long Xu,  $K_xVPO_4F$  ( $x \sim 0$ ): a new high-voltage and low-stain cathode material for ultrastable calcium rechargeable batteries, *Advanced Energy Materials*, 2024, 14, 2302700. (Front cover paper) [IF=24.4, Energy & Fuels, Q1, 5/171, top 10%]
2. **Renjie Li**, Jingya Yu, Feiyang Chen, Yaqiong Su, Kang Cheung Chan, Zheng-Long Xu, High-power and ultrastable aqueous calcium-ion batteries enabled by small organic molecular crystal anodes, *Advanced Functional Materials*, 2023, 33, 2214304. [IF=18.5, Chemistry, multidisciplinary, Q1, 10/231, top 10%]
3. **Renjie Li**, Guisheng Liang, Xingzhen zhu, Qingfeng Fu, Yongjun Chen, Lijie Luo, Chunfu Lin,  $Mo_3Nb_{14}O_{44}$ : a new  $Li^+$  container for high-performance electrochemical energy storage, *Energy & Environmental Materials*, 2021, 4, 65-71. [IF=13, Materials science, multidisciplinary, Q1, 35/439, top 10%]
4. **Renjie Li**, Yiran Pu, Jian Xu, Qingfeng Fu, Guisheng Liang, Xiangzhen Zhu, Lijie Luo, Yongjun Chen, Chunfu Lin, Novel  $GaNb_{49}O_{124}$  microspheres with intercalation pseudocapacitance for ultrastable lithium-ion storage, *Ceramics International*, 2019, 45, 12211-12217. [IF=5.1, Materials science, ceramics, Q1, 3/31, top 10%]
5. **Renjie Li**, Chunfu Lin, Ning Wang, Lijie Luo, Yongjun Chen, Jianbao Li, Zhanhu Guo, Advanced composites of complex Ti-based oxies as anode materials for lithium-ion batteries, *Advanced Composites and Hybrid Materials*, 2018, 1, 440-459. (Cover paper) [IF=23.2, Materials science, composites, Q1, 1/35, top 10%]

## OTHER PUBLICATIONS:

1. **Renjie Li**, Xiangzhen Zhu, Qingfeng Fu, Guisheng Liang, Yongjun Chen, Lijie Luo, Chunfu Lin, Renbo Wei, Zhanhu Guo, Nanosheet-based  $Nb_{12}O_{29}$  hierarchical microspheres for enhanced lithium storage, *Chemical Communications*, 2019, 55, 2493. [IF=4.3, Chemistry, multidisciplinary, Q2, 72/231]
2. **Renjie Li**, Yi Qin, Xin Liu, Liang Yang, Chunfu Lin, Ran Xia, Shiwei Lin, Yongjun Chen, Jianbao Li, Conductive  $Nb_{25}O_{62}$  and  $Nb_{12}O_{29}$  anode materials for use in high-performance lithium-ion storage, *Electrochim. Acta*, 2018, 266, 202. [IF=5.5, Electrochemistry, Q1, 11/45]
3. Xiaoming Lou<sup>#</sup>, **Renjie Li**<sup>#</sup>, Xiangzhen Zhu, Lijie Luo, Yongjun Chen, Chunfu Lin, Hongliang Li, Xiu Song Zhao, A new anode material for lithium-ion batteries: aluminum

- niobate ( $\text{AlNb}_{11}\text{O}_{29}$ ), *ACS Appl. Mater. Interfaces*, 2019, 11, 6089. (Contribution equally) [IF=8.5, Materials science, multidisciplinary, Q1, 68/439]
4. Feiyang Chen, Jingya Yu, **Renjie Li**, Fangyi Shi, Xiangli Che, Kang Cheung Chan, Yang Sun, Weijiang Xue, Zheng-Long Xu, Direct crystallization of deep eutectic solvent into solid-state electrolyte for magnesium metal batteries, *J. Power Source*, 2024, 611, 234780. [IF=8.1, Electrochemistry, Q1, 6/45]
  5. Yuyang Yi, Youdong Xing, Hui Wang, Zhihan Zeng, Zhongti Sun, **Renjie Li**, Huijun Lin, Yiyuan Ma, Xiangjun Pu, Molly Meng-Jung Li, Kyu-Young Park, Zheng-Long Xu, Deciphering anion-modulated solvation structure for calcium intercalation into graphite for Ca-ion batteries, *Angew. Chem. Int. Ed.*, 2024, 63, e202317177. [IF=16.1, Chemistry, multidisciplinary, Q1, 14/231, top 10%]
  6. Hao Ling, Muhua Sun, Hongbo Han, Lisha Lu, Lejuan Cai, Yingying Lan, **Renjie Li**, Pan Chen, Xuezheng Tian, Xuedong Bai, Wenlong Wang, High-entropy lithium niobate nanocubes for photocatalytic water splitting under visible light, *J. Phys. Chem. Lett.*, 2024, 15, 5103. [IF=4.9, Materials science, multidisciplinary, Q2, 133/439]
  7. Xiangjun Pu, Kunran Yang, Zibing Pan, Chunhua Song, Yangyang Lai, **Renjie Li**, Zheng-Long Xu, Zhongxue Chen, Yuliang Cao, Extending the solid solution range of sodium ferric pyrophosphate: Off-stoichiometric  $\text{Na}_3\text{Fe}_{2.5}(\text{P}_2\text{O}_7)_2$  as a novel cathode for sodium-ion batteries, *Carbon Energy*, 2024, 6, e449. [IF=19.5, Materials science, multidisciplinary, Q1, 17/439, top 10%]
  8. Huijun Lin, Jiayi Meng, Weihua Guo, **Renjie Li**, Yuyang Yi, Yiyuan Ma, Chi Fai Cheung, Doron Aurbach, Zheng-Long Xu, Deciphering the dynamic interfacial chemistry of calcium metal anodes, *Energy Environ. Sci.*, 2024, 17, 6548. [IF=32.4, Chemistry, multidisciplinary, Q1, 4/231, top 10%]
  9. Jingya Yu, Chunhong Chen, Fangyi Shi, **Renjie Li**, Feiyang Chen, JingJing Tang, Kang Cheung Chan, Zheng-Long Xu, A multifunctional MXene-porous polydopamine interface for stable and dendrite-free zinc metal batteries, *Energy Storage Materials*, 2023, 63, 102966. [IF=18.9, Materials science, multidisciplinary, Q1, 19/439, top 10%]
  10. Lejuan Cai, Lisha Lu, Yingying Lan, Youming Zhang, Jianlin Wang, Zijia Lin, **Renjie Li**, Fan Zhang, Jie Yu, Wengang Lu, Xuedong Bai, Wenlong Wang, Multidentate chelation enables high-efficiency  $\text{Mn}^{2+}$  storage in polyimide covalent organic framework for aqueous all Mn-ion battery, *Adv. Energy Mater.*, 2023, 13, 2301631. [IF=24.4, Chemistry, Physical, Q1, 6/178, top 10%]
  11. Huijun Lin, Jingya Yu, Feiyang Chen, **Renjie Li**, Bao Yu Xia, Zheng-Long Xu, Visualizing the interfacial chemistry in multivalent metal anodes by transmission electron microscopy,

- Small Methods.*, 2023, 7, 2300561. [IF=10.7, Materials science, multidisciplinary, Q1, 47/439]
12. Fan Zhang, Yingying Lan, **Renjie Li**, Jianlin Wang, Shengxiang Wu, Lejuan Cai, Yu Zhao, Wenlong Wang, Boosting the rate performance of primary Li/CF<sub>x</sub> batteries through interlayer conductive network engineering, *J. Mater. Chem. A*, 2023, 11, 20187. [IF=10.8, Materials science, multidisciplinary, Q1, 46/439]
  13. Cihui Huang, **Renjie Li**, Lijie Luo, Yongjun Chen, Chunfu Lin, The exploration of a CuNb<sub>3</sub>O<sub>8</sub> Li<sup>+</sup>-storage anode compound, *Mater. Technol.*, 2022, 37, 814. [IF=2.9, Materials science, multidisciplinary, Q3, 221/439]
  14. Yuanfei Ai, Shu-Chi Wu, Fan Zhang, Xiaowei Zhang, **Renjie Li**, Yingying Lan, Lejuan Cai, Wenlong Wang, Bifunctional TiN@ N-doped-graphene catalyst based high sulfur content cathode for reversible Aluminum-Sulfur batteries, *Energy Storage Materials*, 2022, 48, 297. [IF=18.9, Materials science, multidisciplinary, Q1, 19/439, top 10%]
  15. Yuanfei Ai, Xiaowei Zhang, **Renjie Li**, Yingying Lan, Yu Zhao, Hao Ling, Fan Zhang, Chunyi Zhi, Xuedong Bai, Wenlong Wang, Reversible intercalation of Al-ions in poly (3, 4-ethylenedioxythiophene): poly (4-styrenesulfonate) electrode for aqueous electrochemical capacitors with high energy density, *Energy Technol.*, 2021, 9, 2001036. [IF=3.6, Energy & Fuels, Q3, 91/171]
  16. Qingfeng Fu, Xiangzhen Zhu, **Renjie Li**, Guisheng Liang, Lijie Luo, Yongjun Chen, Yuanli Ding, Chunfu Lin, Kuikui Wang, Xiu Song Zhao, A low-strain V<sub>3</sub>Nb<sub>17</sub>O<sub>50</sub> anode compound for superior Li<sup>+</sup> storage, *Energy Storage Materials*, 2020, 30, 401. [IF=18.9, Materials science, multidisciplinary, Q1, 19/439, top 10%]
  17. Xiangzhen Zhu, Guisheng Liang, Qingfeng Fu, **Renjie Li**, Yongjun Chen, Yicheng Bi, Duo Pan, Rajib Das, Chunfu Lin, Zhanhu Guo, An inverse opal Cu<sub>2</sub>Nb<sub>34</sub>O<sub>87</sub> anode for high-performance Li<sup>+</sup> storage, *Chem. Commun.*, 2020, 56, 7321. [IF=4.3, Chemistry, multidisciplinary, Q2, 72/231]
  18. Qingfeng Fu, **Renjie Li**, Xingzhen zhu, Guisheng Liang, Lijie Luo, Yongjun Chen, Chunfu Lin, Xiu Song Zhao, Design, synthesis and lithium-ion storage capability of Al<sub>0.5</sub>Nb<sub>24.5</sub>O<sub>62</sub>, *J. Mater. Chem. A*, 2019, 7, 19862. [IF=10.8, Materials science, multidisciplinary, Q1, 46/439]
  19. Xiangzhen Zhu, Haijie Cao, **Renjie Li**, Qingfeng Fu, Guisheng Liang, Yongjun Chen, Lijie Luo, Chunfu Lin, Xiu Song Zhao, Zinc niobate materials: crystal structures, energy-storage capabilities and working mechanisms, *J. Mater. Chem. A*, 2019, 7, 25537. [IF=10.8, Materials science, multidisciplinary, Q1, 46/439]
  20. Pengcheng Xie, Fan Yang, **Renjie Li**, Changzhi Ai, Chunfu Lin, Shiwei Lin, Improving hydrogen evolution activity of perovskite BaTiO<sub>3</sub> with Mo doping: experiments and first-

principles analysis, *Int. J. Hydrogen Energy*, 2019, 44, 11695. [IF=8.1, Electrochemistry, Q1, 6/45]

21. Lei Hu, Lijie Luo, Lingfei Tang, Chunfu Lin, **Renjie Li**, Yongjun Chen,  $\text{Ti}_2\text{Nb}_{2x}\text{O}_{4+5x}$  anode materials for lithium-ion batteries: a comprehensive review, *J. Mater. Chem. A*, 2018, 6, 9799. [IF=10.8, Materials science, multidisciplinary, Q1, 46/439]
22. Xiangzhen Zhu, Qingfeng Fu, Lingfei Tang, Chunfu Lin, Jian Xu, Guisheng Liang, **Renjie Li**, Lijie Luo, Yongjun Chen,  $\text{Mg}_2\text{Nb}_{34}\text{O}_{87}$  porous microspheres for use in high-energy, safe, fast-charging, and stable lithium-ion batteries, *ACS Appl. Mater. Interfaces*, 2018, 10, 23711. [IF=8.5, Materials science, multidisciplinary, Q1, 68/439]
23. Xiaoyong Fan, Pan Liu, Shan Wang, Jiaying Han, Kefan Ni, Lei Gou, Lei Xu, Donglei Li, Chunfu Lin, **Renjie Li**, Electrochemical construction and sodium storage performance of three-dimensional porous self-supported  $\text{MoS}_2$  electrodes, *Funct. Mater. Lett.*, 2018, 11, 1850050. [IF=1.2, Materials science, multidisciplinary, Q4, 363/439]