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职称：副教授-tenure track（研究员 2016-现在），博士生导师（化学）

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研究方向：固态电化学、锂离子电池

简介

杨文，男，2003 本科学位获得于陕西师范大学应用化学专业，2009 博士学位获得于中科院长春应用化学研究所电分析国家重点实验室，导师杨秀荣。2010-2011 德国马普学会胶体界面所 MPIKG 博士后，合作导师，Markus Antonietti 和王心晨教授（现为福州大学）。2011 年入职北京理工大学，2015 年获批北京理工大学博士生导师，2016 年 3 月聘为北京理工大学化学与化工学院预聘副教授。近几年有关电化学储能与转化的研究成果已在先后在 ***The Journal of Physical Chemistry Letters***, ***Journal of Catalysis***, ***Chemical Engineering Journal***, ***ACS Applied Materials & Interfaces***, ***Carbon***, ***Science Bulletin***, ***Electrochemistry Communications***, ***Chemical Communications***, ***Nano Letter***, ***Current Opinion of Colloid & Interface Science***, ***Chemistry – A European Journal***, ***Journal of Colloid and Interface Science***, ***ChemElectroChem***, ***Chinese Chemical Letters***, ***Journal of the American Chemical Society***, ***Energy & Environmental Science***, ***Advanced Materials***, 等期刊发表科研论文 54 篇，在英文专著 ***Comprehensive Nanoscience and Nanotechnology 2nd Edition***（Elsevier）撰写一章，杨文博士及课题组成员在电化学储能及转化领域积累了丰富的实践及理论知识。

研究兴趣

1. 全固态锂金属电池（固态电解质和锂金属负极）
2. 下一代锂离子电池和其他新型储能体系（锂硫电池、超级电容器等）

欢迎热爱电化学和新能源汽车的同学报考研究生、博士生以及入职博士后
欢迎化工、材料学，物理等工科专业保送硕士生。

新能源  动力电池

研究成果

主要从事电化学储能与转化的研究工作，近四年，研究成果先后在 *The Journal of Physical Chemistry Letters*, *Journal of Catalysis*, *Chemical Engineering Journal*, *ACS Applied Materials & Interfaces*, *Carbon*, *Science Bulletin*, *Chemical Communications*, *Nano Letter*, *Current Opinion of Colloid & Interface Science*, *Chemistry - A European Journal*, *Journal of Colloid and Interface Science*, *ChemElectroChem*, *Electrochemistry Communications*, *Chinese Chemical Letters* 等期刊发表科研论文 20 篇，其中顶级期刊 15 篇，在英文专著 *Comprehensive Nanoscience and Nanotechnology 2nd Edition (Elsevier)* 撰写一章，先后获批国家自然科学基金面上项目（66 万），北京市基金面上项目、国家基金-青年项目（27 万）等科研项目共计 7 项；获得专利授权两项。

学生就业及发展情况

博士生：倪梅-国营北京七一九厂。

硕士生：田亚芬（美国德州大学达拉斯分校-博士生），张俏（陕煤集团），梁思慧（东风汽车）；于佩文（北京理工大学-博士生）；刘珍珍（北汽）；连漪梦（澳大利亚卧龙岗大学-博士生）；葛琦（宁德时代 CATL）；周耀丹（北汽研究院）。

本科生：李莎妮（中科院电工所-硕博连读）。

学生的进步和发展是老师的骄傲！

近期发表主要论文：

1. 高离子电导率硫化物固态电解质的空气稳定性研究进展, 吕璐, 周雷, Muhammad Khurram Tufail, 杨乐, 陈人杰*, 杨文1*, 中国科学: 化学, 2020, SSC-2020-0089.R1【庆祝北京理工大学建校八十周年专辑】
2. Enhanced Air Stability and High Li-Ion Conductivity of Li₆.988P₂.994Nb_{0.2}S₁₀.934O_{0.6} Glass-Ceramic Electrolyte for All-Solid-State Lithium-Sulfur Batteries, Niaz Ahmad, Lei Zhou, Muhammad Faheem, Muhammad Khurram Tufail, Le Yang, Renjie Chen* Yaodan Zhou, and Wen Yang*, *ACS Appl. Mater. Interface* (顶级期刊), 2020, 12, 19, 21548–21558.【氧、铌共掺杂策略提高硫化物固态电解质空气稳定性/留学生发表的顶级期刊文章】
3. Cathode-Doped Sulfide Electrolyte Strategy for Boosting All-Solid-State Lithium Batteries, Lei Zhou, Muhammad Khurram Tufail, Le Yang, Niaz Ahmad, Renjie Chen, * Wen Yang*, *Chemical Engineering Journal* (IF 8.355, 顶级期刊) Pub Date : 2019-11-18, DOI: 10.1016/j.ccej.2019.123529.【正极掺杂策略用于硫化物固态电池中】
4. Salt and sugar derived high power carbon microspheres anode with excellent low-potential capacity, Le Yang, Mingxiang Hu, Qian Lv, Hongwei Zhang. Wen Yang*, Ruitao Lv*, *Carbon* (IF 8.821, 顶级期刊), 2020, 163, 15, 288-296.【厨房里衍生的实用化的高倍率钠电硬炭材料, 本文被 InfoMat 作为新闻稿报道】
5. Yi-Meng Lian, Wellars Utetiwabo, Yaodan Zhou, Zheng-Hong Huang, Lei Zhou, Faheem Muhammad, Ren-Jie Chen, Wen Yang*, From upcycled waste polyethylene plastic to graphene/mesoporous carbon for high-voltage supercapacitors, *Journal of Colloid and Interface Science*, (IF 7.489 Q1 期刊,) 2019, 557, 55-64.【GO 助力塑料衍生多孔碳冲击电压 4V 电容器, 内侧封面文章】
6. Wellars Utetiwabo, Le Yang, Muhammad Khurram Tufail, Lei Zhou, Renjie Chen, Yimeng Lian, Wen Yang *, Electrode materials derived from plastic wastes and other industrial wastes for supercapacitors, *Chinese Chemical Letters*, Available online 3 January 2020.【留学生发表的 2 区期刊文章】
7. Yi-Meng Lian, Wellars Utetiwabo, Yaodan Zhou, Zheng-Hong Huang, Lei Zhou, Faheem Muhammad, Ren-Jie Chen, Wen Yang*, From Upcycled Waste Polyethylene Plastic to Graphene/Mesoporous Carbon for High-Voltage Supercapacitors, *Journal of Colloid and Interface Science*, (IF 7.489 Q1 期刊), 2019, 55–64.【GO 助力塑料衍生多孔碳冲击电压 4V 电容器】.
8. Yaodan Zhou, Wen Yang*, Wellars Utetiwabo, Yi-meng Lian, Xue Yin, Lei Zhou, Peiwen Yu, Renjie Chen, Shaorui Sun*, Revealing of Active Sites and Catalytic Mechanism in N-Coordinated Fe,Ni Dual-Doped Carbon with Superior Acidic Oxygen Reduction than Single-Atom Catalyst, *Journal of Physical Chemistry Letters*, 顶级期刊, DOI: 10.1021/acs.jpcclett.9b03771【Fe-Ni-N₆ 双原子新构型的探讨, 该文获得 2019 BIT-JPCL work shop 优秀论文奖, 周耀丹同学获得 ACS 学会颁发奖金 600 RMB】
9. Le Yang, Mingxiang Hu, Hongwei Zhang, Wen Yang*, Ruitao Lv*, Pore structure regulation of hard carbon: Towards fast and high - capacity sodium - ion storage, *Journal of Colloid and Interface Science*, (IF 7.489 Q1 期刊) 2020, 566, 257-264.【核桃衍生硬炭, 水热调控硬炭孔径, 探讨储钠机理】
10. Yimeng Lian, Mei Ni, Zhenghong Huang, Renjie Chen, Lei Zhou, Wellars Utetiwabo, Wen Yang*, Polyethylene Waste Carbons with a Mesoporous Network towards High Efficient Supercapacitor, *Chemical Engineering Journal*(IF 8.355, 顶级期刊), 2019, 15, 313-320.【妙洁塑料袋+防火材料构筑高性能电容器用介孔碳, 变废为宝】
11. Qi Ge, Lei Zhou, Yi-meng Lian, Xiaoling Zhang, Renjie Chen*, Wen Yang*, Metal-phosphide-doped Li₇P₃S₁₁ glass-ceramic electrolyte with high ionic conductivity for all-solid-state lithium-sulfur batteries, *Electrochemistry Communications*, 2018, ,97, 100–104【过渡金属磷化物用于硫属固体电解质掺杂及其在固态锂硫的应用】
12. Yi - Meng Lian, Mei Ni, Lei Zhou, RenJie Chen*, Wen Yang*, Synthesis of Biomass - Derived Carbon Induced by Cellular Respiration in Yeast for Supercapacitor Applications, *Chemistry – A European Journal*, 2018, ,24, 18068 – 18074【酵母呼吸作用生物工程方法构筑电容器用生物活性炭】
13. Zhenzhen Liu, Lei Zhou, Qi Ge, Renjie Chen *, Mei Ni, Wellars Utetiwabo, Xiaoling Zhang, and Wen Yang *, 2. Atomic Iron Catalysis of Polysulfide Conversion in Lithium-Sulfur Batteries, *ACS Appl. Mater. Interface* (1 区); 2018, 10, 19311–19317【单原子催化在锂硫电池中应用】.

14. Qiao Zhang, Junhu Wang, Peiwen Yu, Fei Song, Xue Yin, Renjie Chen, Hailiang Nie, Xiaoling Zhang and Wen Yang*, "Porous carbon electrocatalyst with exclusive metal-coordinate active sites for acidic oxygen reduction reaction" *Carbon* (1区), 2018, <https://doi.org/10.1016/j.carbon.2018.02.019>. 【铁钴单原子氧还原催化剂】
15. Peiwen Yu, Renjie Chen, Qiao Zhang, Sihui Liang, Mei Ni, Wen Yang*, "Porous Carbon Supported Atomic Iron as Electrocatalysts for Acidic Oxygen Reduction Reaction", *Science bulletin* (1区) 2018, <https://doi.org/10.1016/j.scib.2018.01.012>. 【高铁掺杂非贵金属催化剂及其构效关系研究】
16. Sihui Liang, Renjie Chen, Peiwen Yu, Mei Ni, Qiao Zhang, Xiaoling Zhang, Wen Yang*, "Ionically Dispersed Fe(II)-N and Zn(II)-N in Porous Carbon for Acidic Oxygen Reduction Reaction", *Chemical Communications* (1区), 2017, DOI: 10.1039/C7CC06555H. 【大批量制备单原子催化剂, Zn-N₄ 活性位点, 北京光源 2017 热点文章】
17. Mei Ni, Zhenghong Huang, Yimeng Lian, Renjie Chen, Xiaoling Zhang, Hailiang Nie, and Wen Yang*, "Synergistic Doping for Pseudocapacitance Sites in Alkaline Carbon Supercapacitors," *ChemElectroChem* (2区), 2017, Accepted. 【同步辐射光电子能谱研究氮掺杂碳材料在碱性电容器的活性位点】
18. Mei Ni, Zhenghong Huang, Xiaoling Zhang, Jinping Liu, Liang Qiao and Wen Yang*, "Hierarchical design of nitrogen-doped porous carbon nanorods for use in high efficiency capacitive energy storage", *RSC Adv.* (2区), 2017, 7, 22447-22453. 【孔道贯通碳结构改善碱性电容器浸润性】
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20. Feng Wu, Jian Li, Yuefeng Su, Jing Wang, Wen Yang, Ning Li, Lai Chen, Shi Chen, Renjie Chen, and Liying Bao. *Nano Letter* (1区), 2016, DOI: 10.1021/acs.nanolett.6b01981. 【层层组装技术构筑抑制锂硫电池多硫化物穿梭效应】
21. Yunqian Gong, Bin Yu, Wen Yang, Xiaoling Zhang, "Phosphorus, and nitrogen co-doped carbon dots as a fluorescent probe for real-time measurement of reactive oxygen and nitrogen species inside macrophage", *Biosensors and Bioelectronics* (1区), 2016, 79, 822-828 【荧光碳点能带结构测定及其用于细胞活性氧活性氮原位测定】.
22. Feng Wu, Jian Li, Yafen Tian, Yuefeng Su, Jing Wang, Wen Yang, Ning Li, Shi Chen, Liying Bao, "3D coral-like nitrogen-sulfur co-doped carbon-sulfur composite for high performance lithium-sulfur batteries". *Scientific Reports* (2区), 2015, 5, 13340. *Scientific Reports* 在 2015 年共计发表 11000 篇文章, 本篇文章于 2016 年 4 月 16 日成为 2015 年 *Scientific Reports* 杂志的 "one of the top 100 read Scientific Reports articles in 2015". 【高倍率锂硫电池】.
23. Wen Yang, Mei Ni, Xin Ren, Yafen Tian, Ning Li, Yuefeng Su, and Xiaoling Zhang, "Graphene in Supercapacitor Applications", *Current Opinion in Colloid & Interface Science*, 2015 (2区, 约稿), 5-6, 416-428. 【石墨烯在电容器应用】.
24. Xiaoman Zhai, Wen Yang, Mengyao Li, Guiqin Lv, Jinping Liu, Xiaoling Zhang, "Noncovalent hybrid of CoMn₂O₄ spinel nanocrystals and poly (diallyldimethylammonium chloride) functionalized carbon nanotubes as efficient

electrocatalysts for oxygen reduction reaction”, *Carbon* (1 区), **2013**, *66*, 277-286. 【聚合物包裹技术构筑高性能 ORR/OER 碱性催化剂】.

博士后及博士工作 (2003-2011)

25. Wen Yang, * Tim Fellingner, and Markus Antonietti, “Efficient Metal-free Oxygen Reduction in Alkaline Medium on High-Surface-Area Mesoporous Nitrogen-doped Carbons made from Ionic liquids and Nucleobases”, *Journal of the American Chemical Society* (1 区, SCI 高被引论文, 谷歌引用 cited 673 time), **2011**, *133*, 206-209. 【MPIKG-胶体界面所第一篇非贵金属 ORR 催化剂】
26. Zoë Schnepf, Wen Yang, Markus Antonietti and Cristina Giordano, * “Biotemplating of Metal Carbide Microstructures: The Magnetic Leaf”, *Angewandte Chemie International Edition* (1 区), **2010**, *49*, 6564–6566.=
27. Wen Yang, Yong Wang, Jing Li, and Xiurong Yang,* “Polymer wrapping technique: an effective route to prepare Pt nanoflower/carbon nanotube hybrids and application in oxygen reduction”, *Energy & Environmental Science* (1 区), **2010**, *3*, 141-149. 【2008 年约稿, 聚合物包裹技术构筑碳纳米管负载铂纳米花】.
28. Wen Yang, Xiaolei Wang, Fan Yang, Cheng Yang, and Xiurong Yang,* “Carbon nanotubes decorated with Pt nanocubes by a noncovalent functionalization method and their role in oxygen reduction”, *Advanced Materials* (1 区), **2008**, *20*, 2579-2587. 本篇文章于 2008 年 9 月 17 日被 Nature Asia Materials 重点报道。【层层组装技术构筑碳纳米管负载的形貌可控的铂纳米材料, 科学通报新闻 2008】

论著

1. Lei Zhou, Wellars Utetiwabo, Renjie Chen*, Wen Yang*, Layer by Layer Assemble of Colloid Nanomaterial and Functional Multilayer Films for Energy Storage and Conversion, **Comprehensive Nanoscience and Nanotechnology, 2nd edition, Elsevier**; 2019 年 1 月。【约稿】