

Curriculum vitae

Huili Cao

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Education

2018.01 -	Department of Chemistry	PhD degree
2021.08	Technical University of Denmark	Supervisor: Professor Susanne Mossin
2014.09 -	School of Material Science and Engineering	Master's degree
2017.06	Shandong University	Supervisor: Professor Jiurong Liu
2010.09 -	School of Material Science and Engineering	Bachelor's degree
2014.06	Shandong University	

Research Experience

2021.07-Current	Department of Chemistry Technical University of Denmark	Postdoc
2017.07-2017.12	School of Material Science and Engineering Shandong University	Research assistant

Research Project

Preparation of manganese-based oxide and vanadium-based oxide electrode materials and their applications in energy storage devices.

Honours

2021.02	Best oral presentation in PhD school Symposium 2020, Department of Chemistry, Technical University of Denmark
2017.05	PhD scholarship from China Scholarship Council
2016.12	Guanghua Scholarship
2015.12	Outstanding Postgraduate of Shandong University
2014.06	Outstanding Graduates of Shandong University
2013.04	Excellent youth Communist of Shandong University
2012.12	Provincial Third Prize of Shandong University Student Mathematics Competition
2011.12	Advanced Individual of University Student Volunteer Service
2011-2013	Second-class scholarship of Shandong University for three consecutive years

Skills

- Language: Fluent in English, CET-6 (523); native Mandarin
- Computer: C++, Level 2
- Skilled at Photoshop, Office, Origin, 3D Max, Jade, Nova, Avantage softwares and so on
- Proficient in operating the characterization instruments, such as SEM, TEM, XPS, BET, AFM and so on
- Familiar with the preparation and characterization of metal ion batteries

Other activities

- PhD period
 - Participate in the Nordic Battery Conference
 - Participate in the Sustainable Energy Conference of the Technical University of Denmark

- Mater Period
 - Served as the deputy league secretary of the class
- Undergraduate period
 - Served as the league secretary of the class
 - Served as the Deputy Director of the Young Volunteers Association in our school

Publications

- [1] **H. Cao***, Chao Peng, Zhenyun Lan, Z. Zheng, Q. Pan, U. Nielsen, P. Norby, X. Xiao*, S. Mossin*, Orientation Effect of Zinc Vanadate Cathode on Zinc Ion Storage Performance. *Electrochimica Acta*, 2021, 388, 138646.
- [2] **H. Cao***, Z. Zheng, X. Xiao*, P. Norby, S. Mossin*, Electrochemically induced phase transition in $V_3O_7 \cdot H_2O$ nanowires/reduced graphene oxide composites for aqueous zinc-ion batteries, *Small*, 2021, 17, 2100558. (Back inside cover)
- [3] **H. Cao***, Z. Zheng, J. Meng, X. Xiao, P. Norby, S. Mossin*, Examining the effects of nitrogen-doped carbon coating on zinc vanadate nanoflowers towards high performance lithium anode, *Electrochimica Acta*, 2020, 356, 136791.
- [4] **H. Cao**, X. Xiao, X. Wang, J. Liu*, P. Si*, Morphology engineering of self-assembled porous zinc manganate hexagons for lithium ion storage, *Electrochimica Acta*, 2020, 330, 135260.
- [5] **H. Cao**, X. Jiang, B. Song, Y. Shi*, Preparation of tin oxide/graphene composite for lithium-ion batteries' application, IOP Conference Series: *Materials Science and Engineering*, 2019, 474.
- [6] **H. Cao**, N. Wu, Y. Liu, S. Wang, W. Du, J. Liu*, Facile synthesis of rod-like manganese molybdate crystallines with two-dimensional nanoflakes for supercapacitor application, *Electrochimica Acta*, 2017, 225, 605.
- [7] **H. Cao**, Y. Shi*, H. Shen, H. Zhan, J. Liu, The Production of Core-Shell Structure Carboxylated Carbon Nanotubes/Polypyrrole Composite Materials in Different Reaction Media and Further Investigation on their Core-Shell Structure, *Key Engineering Materials*, 2017, 730, 37.
- [8] **H. Cao**, X. Wang, H. Gu, J. Liu*, L. Luan, W. Liu, Z. Guo*, Carbon coated manganese monoxide octahedron negative-electrode for lithium-ion batteries with enhanced performance, *RSC Advances*, 2015, 44, 34566.
- [9] C. Hu, **H. Cao**, S. Wang, N. Wu, S. Qiu, H. Lyu, J. Liu, Synthesis of strontium hexaferrite nanoplates and the enhancement of their electrochemical performance by Zn^{2+} doping for high-rate and long-life lithium-ion batteries, *New Journal of Chemistry*, 2017, 41, 6427.
- [10] Z. Zheng, P. Yu, **H. Cao**, M. Cheng, T. Zhou, L. Lee, J. Ulstrup, J. Zhang, C. Engelbrekt, L. Ma, Starch Capped Atomically Thin CuS Nanocrystals for Efficient Photothermal Therapy, 2021, 202103461.
- [11] Z. Zheng, Y. Xiao, **H. Cao**, X. Tian, R. Wu, J. Zhang, J. Ulstrup, F. Zhao, Effect of copper and phosphate on the biosynthesis of palladium nanoparticles by *Shewanella oneidensis* MR-1, *ChemElectroChem*, 2020, 7, 4460.
- [12] Y. Liu, N. Wu, Z. Wang, **H. Cao**, J. Liu, Fe_3O_4 nanoparticles encapsulated in multi-walled carbon nanotubes possess superior lithium storage capability, *New Journal of Chemistry*, 2017, 41, 6241.
- [13] C. Hu, S. Qiu, G. Lu, **H. Cao**, H. Lv, S. Guo, J. Liu, Enhanced electrochemical performance of barium hexaferrite nanoplates by Zn^{2+} doping serving as anode materials, *RSC Advances*, 2015, 5, 70749.
- [14] X. Xie, X. Wang, J. Tian, J. Liu, **H. Cao**, X. Song, N. Wei, H. Cui, Facile synthesis and superior ethyl acetate sensing performance of Au decorated ZnO flower-like architectures, *Ceramics International*, 2017, 43, 5053.