无机化学-朱永春

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个人简历

2006年在中国科学技术大学化学系获得博士学位。随后在该校材料科学系从事博士后研究。2008起留校任教。长期从事二次电池电极材料研究，2015年以来，以第一/通信作者在Adv. Mater.、Energy Environ. Sci.、Adv. Energy Mater.、Adv. Funct. Mater.、Joule、 Angew. Chem. Int. Ed.、Chem、Nano Energy、ACS nano、Chem. Mater.等发表SCI论文70余篇 ，影响因子10.0以上30余篇 ，H 因子50。

研究方向

二次电池关键材料

固体无机化学

招生信息

需具备电化学和材料研究背景

论文专著

1) Low-Electronegativity Cationic High-Entropy Doping to Trigger Stable Anion Redox Activity for High-Ni Co-Free Layered Cathodes in Li-Ion Batteries - Low-Electronegativity Cationic High-Entropy Doping to Trigger Stable Anion Redox Activity for High-Ni Co-Free Layered Cathodes in Li-Ion Batteries - 2024

2) Trade-off between H2O-rich and H2O-poor electric double layer enables highly reversible Zn anodes in aqueous Zn-ion batteries - Trade-off between H2O-rich and H2O-poor electric double layer enables highly reversible Zn anodes in aqueous Zn-ion batteries - 2024

3) An Ion-Sieving Janus Separator toward Planar Electrodeposition for Deeply Rechargeable Zn-Metal Anodes - An Ion-Sieving Janus Separator toward Planar Electrodeposition for Deeply Rechargeable Zn-Metal Anodes - 2022

4) Se-Induced Fibrous Nano Red P with Superior Conductivity for Sodium Batteries - Se-Induced Fibrous Nano Red P with Superior Conductivity for Sodium Batteries - 2023

5) Enamel-like Layer of Nanohydroxyapatite Stabilizes Zn Metal Anodes by Ion Exchange Adsorption and Electrolyte pH Regulation - Enamel-like Layer of Nanohydroxyapatite Stabilizes Zn Metal Anodes by Ion Exchange Adsorption and Electrolyte pH Regulation - 2022

6) Ultra-long-life and highly reversible Zn metal anodes enabled by a desolvation and deanionization interface layer dagger - Ultra-long-life and highly reversible Zn metal anodes enabled by a desolvation and deanionization interface layer dagger - 2021

7) An Oxygen-Resistant and Self-Eliminating Passivated Layer for Highly Stable Lithium Metal Batteries - An Oxygen-Resistant and Self-Eliminating Passivated Layer for Highly Stable Lithium Metal Batteries - 2022

8) A Friendly Soluble Protic Additive Enabling High Discharge Capability and Stabilizing Li Metal Anodes in Li-O-2 Batteries - A Friendly Soluble Protic Additive Enabling High Discharge Capability and Stabilizing Li Metal Anodes in Li-O-2 Batteries - 2022

9) NaTi2(PO4)(3)Solid-State Electrolyte Protection Layer on Zn Metal Anode for Superior Long-Life Aqueous Zinc-Ion Batteries - NaTi2(PO4)(3)Solid-State Electrolyte Protection Layer on Zn Metal Anode for Superior Long-Life Aqueous Zinc-Ion Batteries - 2020

10) High-Spin Sulfur-Mediated Phosphorous Activation Enables Safe and Fast Phosphorus Anodes for Sodium-Ion Batteries - High-Spin Sulfur-Mediated Phosphorous Activation Enables Safe and Fast Phosphorus Anodes for Sodium-Ion Batteries - 2020

Inorganic Chemistry - Zhu Yongchun

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Affiliation: School of Chemistry and Materials Science

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Personal Homepage: <http://dslx.ustc.edu.cn/?menu=expert_paper&expertid=2683>

Personal Profile:

In 2006: Received a Ph.D. in Chemistry from the University of Science and Technology of China.

From 2006: Conducted postdoctoral research in the Department of Materials Science of the University of Science and Technology of China.

From 2008: Began teaching at the University of Science and Technology of China.

Research Focus: Engaged in the research of electrode materials for secondary batteries for a long time

Papers:

He has published over 70 SCI papers as a first or corresponding author in journals such as Adv. Mater., Energy Environ. Sci., Adv. Energy Mater., Adv. Funct. Mater., Joule, Angew. Chem. Int. Ed., Chem, Nano Energy, ACS Nano, and Chem. Mater. since 2015, with over 30 papers having an impact factor above 10.0 and an H-index of 50.

Research Directions:

Key materials for secondary batteries

Solid-state inorganic chemistry

Admissions Information:

Applicants should have a background in electrochemistry and materials research.

Publications and Monographs:

1) Low-Electronegativity Cationic High-Entropy Doping to Trigger Stable Anion Redox Activity for High-Ni Co-Free Layered Cathodes in Li-Ion Batteries - Low-Electronegativity Cationic High-Entropy Doping to Trigger Stable Anion Redox Activity for High-Ni Co-Free Layered Cathodes in Li-Ion Batteries - 2024

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