福州大学 物理与信息工程学院

王星辉

教授，院长助理

博士生导师，入选闽江学者特聘教授，福建省杰出青年项目。2013年博士毕业于兰州大学物理科学与技术学院。2012年至2018年间，先后在新加坡南洋理工大学和新加坡-麻省理工学院科研中心从事科学研究工作。研究方向为新型储能材料与器件，主要致力于薄膜固态锂离子微电池、集成电路用平面超级电容器、柔性储能器件、新型储能电池体系、机器学习在能源领域的应用等方面的研究。迄今为止，在Energy & Environmental Science、Nano Letters、Nano Energy、Small等国际知名新能源材料与器件领域期刊上发表SCI论文60余篇。Google学术显示SCI期刊引用3600余次，论文H指数35，i10指数56。

欢迎有志于科研的本科生、研究生和博士毕业生与我联系。

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学术及社会兼职(Academic and social work)

1	担任Energy Storage Materials、Advanced Materials、ACS Nano、Journal of Materials Chemistry A、Nanoscale、Journal of Power Sources、Carbon等国际能源期刊的长期审稿人。

科研项目(Research project)

1	510738	新型储能材料与器件	300万	福建省教育厅	2018-2021	独立撰编写	
2	83417013	多层中空碳硅纳米电缆阵列负极的可控制备及储锂性能研究	23万	国家自然科学基金	2018-2021	1	
3	2019J06008	高性能柔性硫硅全电池的开发	29.8万	福建省科技厅	2019-2022	独立撰编写	福建省杰青项目

科技论著(Scientific treatise)

1	Stable Lithium Metal Anode Achieved by In Situ Grown CuO Nanowire Arrays on Cu Foam	Energy Fuels 2020	ACS	SCI	通讯	
2	Facile fabrication of core-shell Ni3Se2/Ni nanofoams composites for lithium ion battery anodes	Journal of Materials Science & Technology 2020	Elsevier	SCI	通讯	
3	A hierarchical Copper Oxide-Germanium Hybrid Film for High Areal Capacity Lithium Ion Batteries	Frontiers in Chemistry 2020	Frontiers Media SA	SCI	通讯	
4	Rambutan-like hollow carbon spheres decorated with vacancy-rich nickel oxide for energy conversion and storage	Carbon Energy 2020	Wiley	其它	2	

5	One-step construction of three-dimensional nickel sulfide-embedded carbon matrix for sodium-ion batteries and hybrid capacitors	Energy Storage Materials 2020	Elsevier	SCI	其它
6	A laser synthesis of vanadium oxide bonded graphene for high-rate supercapacitors	Journal of Energy Chemistry 2020	Elsevier	SCI	其它
7	Impact of various dopant elements on the electronic structure of Cu2ZnSnS4 (CZTS) thin films: a DFT study	CrystEngComm 2020	RSC	SCI	其它
8	Enhanced Performance of an Electric Double Layer Microsupercapacitor Based on Novel Carbon-Encapsulated Cu Nanowire Network Structure As the Electrode	ACS Applied Materials & Interfaces 2019	ACS	SCI	通讯
9	In-situ Functionalization of Metal Electrodes for Advanced Asymmetric Supercapacitors	Frontiers in Chemistry 2019	Frontiers Media SA	SCI	1
10	Molybdenum incorporated Cu1.69ZnSnS4 kesterite photovoltaic devices with bilayer microstructure and tunable optical-electronic properties	Solar Energy 2019	Elsevier	SCI	其它
11	Influences of Annealing on Lithium-Ion Storage Performance of Thick Germanium Film Anodes	Nano Energy 2015	Elsevier	SCI	1
12	Ultrahigh Volumetric Capacity Lithium Ion Battery Anodes with Thick CNT-Si Film	Nano Energy 2014	Elsevier	SCI	1
13	High areal capacity Li ion battery anodes based on thick mesoporous Co3O4 nanosheet networks	Nano Energy 2014	Elsevier	SCI	1
14	Metal-free SWNT/carbon/MnO2 hybrid electrode for high performance coplanar micro-supercapacitors	Nano Energy 2016	Elsevier	SCI	1
15	Bi-functional electrode for UV detector and supercapacitor	Nano Energy 2015	Elsevier	SCI	1
16	Vertically aligned CNTs supported Ge thin film as high performance 3D anodes for lithium ion batteries	Small 2014	Wiley	SCI	1
17	Ni–Si nanosheet network as high performance anode for Li ion batteries	Journal of Power Sources 2015	Elsevier	SCI	1
18	Size-controllable porous NiO electrodes for high-performance lithium ion battery anodes	Materials Research Bulletin 2017	Elsevier	SCI	通讯
19	Sulfur cathode integrated with multileveled carbon nanoflake-nanosphere networks for high-performance lithium-sulfur batteries	Electrochimica Acta 2017	Elsevier	SCI	1
20	Highly stable and flexible Li-ion battery anodes based on TiO2 coated 3D carbon nanostructures	Journal of Materials Chemistry A 2015	RSC	SCI	1
21	Optimization of coplanar high rate supercapacitors	Journal of Power Sources 2016	Elsevier	SCI	1
22	A hierarchical 3D carbon nanostructure for high areal capacity and flexible lithium ion batteries	Carbon 2016	Elsevier	SCI	1
23	Copper-Silicon Core-Shell Nanotube Arrays for Free-Standing Lithium Ion Battery Anodes	Journal of Materials Chemistry A 2014	RSC	SCI	1
24	High performance binder-free Sn coated carbon nanotube array anode	Carbon 2015	Elsevier	SCI	1
25	NiO Nanocone Array Electrode with High Capacity and Rate Capability for Li-Ion Batteries	Journal of Materials Chemistry 2011	RSC	SCI	1
26	Mesoporous NiO Nanosheet Networks as High Performance Anode for Li Ion Batteries	Journal of Materials Chemistry A 2013	RSC	SCI	1
27	Nanostructured NiO electrode for high rate Li-ion batteries	Journal of Materials Chemistry 2011	RSC	SCI	1