Zhengyuan Tu

List of Publications by Citations

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Version: 2024-04-23

40 papers	6,187 citations	28 h-index	42 g-index
42 ext. papers	7,171 ext. citations	17.3 avg, IF	6.38 L-index

#	Paper	IF	Citations
40	Stable lithium electrodeposition in liquid and nanoporous solid electrolytes. *Nature Materials*, **2014**, 13, 961-9	27	1096
39	Design principles for electrolytes and interfaces for stable lithium-metal batteries. *Nature Energy*, **2016**, 1,	62.3	990
38	Cryo-STEM mapping of solid-liquid interfaces and dendrites in lithium-metal batteries. *Nature*, **2018** , 560, 345-349	50.4	390
37	Metal-Sulfur Battery Cathodes Based on PAN-Sulfur Composites. *Journal of the American Chemical Society*, **2015**, 137, 12143-52	16.4	376
36	A stable room-temperature sodium-sulfur battery. *Nature Communications*, **2016**, 7, 11722	17.4	353
35	Fast ion transport at solid�olid interfaces in hybrid battery anodes. *Nature Energy*, **2018**, 3, 310-316	62.3	313
34	Ionic-liquid-nanoparticle hybrid electrolytes: applications in lithium metal batteries. *Angewandte Chemie - International Edition*, **2014**, 53, 488-92	16.4	255
33	Designing solid-liquid interphases for sodium batteries. *Nature Communications*, **2017**, 8, 898	17.4	212
32	25th anniversary article: polymer-particle composites: phase stability and applications in electrochemical energy storage. *Advanced Materials*, **2014**, 26, 201-34	24	210
31	Nanoporous Polymer-Ceramic Composite Electrolytes for Lithium Metal Batteries. *Advanced Energy Materials*, **2014**, 4, 1300654	21.8	199
30	Nanostructured electrolytes for stable lithium electrodeposition in secondary batteries. *Accounts of Chemical Research*, **2015**, 48, 2947-56	24.3	161
29	Regulating electrodeposition morphology of lithium: towards commercially relevant secondary Li metal batteries. *Chemical Society Reviews*, **2020**, 49, 2701-2750	58.5	160
28	Highly Stable Sodium Batteries Enabled by Functional Ionic Polymer Membranes. *Advanced Materials*, **2017**, 29, 1605512	24	151
27	Designing Artificial Solid-Electrolyte Interphases for Single-Ion and High-Efficiency Transport in Batteries. *Joule*, **2017**, 1, 394-406	27.8	146
26	Building Organic/Inorganic Hybrid Interphases for Fast Interfacial Transport in Rechargeable Metal Batteries. *Angewandte Chemie - International Edition*, **2018**, 57, 992-996	16.4	139
25	Electrochemical Interphases for High-Energy Storage Using Reactive Metal Anodes. *Accounts of Chemical Research*, **2018**, 51, 80-88	24.3	114
24	Design Principles of Functional Polymer Separators for High-Energy, Metal-Based Batteries. *Small*, **2018**, 14, e1703001	11	111

23	Electroless Formation of Hybrid Lithium Anodes for Fast Interfacial Ion Transport. *Angewandte Chemie - International Edition*, **2017**, 56, 13070-13077	16.4	107
22	Nanoporous Hybrid Electrolytes for High-Energy Batteries Based on Reactive Metal Anodes. *Advanced Energy Materials*, **2017**, 7, 1602367	21.8	95
21	Stable lithium electrodeposition in salt-reinforced electrolytes. *Journal of Power Sources*, **2015**, 279, 413-418	8.9	94
20	Designer interphases for the lithium-oxygen electrochemical cell. *Science Advances*, **2017**, 3, e1602809	14.3	76
19	Highly Conductive, Sulfonated, UV-Cross-Linked Separators for LiS Batteries. *Chemistry of Materials*, **2016**, 28, 5147-5154	9.6	70
18	Ionic-LiquidNanoparticle Hybrid Electrolytes: Applications in Lithium Metal Batteries. *Angewandte Chemie*, **2014**, 126, 498-502	3.6	66
17	Stabilizing polymer electrolytes in high-voltage lithium batteries. *Nature Communications*, **2019**, 10, 3091	17.4	63
16	Building Organic/Inorganic Hybrid Interphases for Fast Interfacial Transport in Rechargeable Metal Batteries. *Angewandte Chemie*, **2018**, 130, 1004-1008	3.6	44
15	Confining electrodeposition of metals in structured electrolytes. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 6620-6625	11.5	42
14	A Dendrite-Free Lithium Metal Battery Model Based on Nanoporous Polymer/Ceramic Composite Electrolytes and High-Energy Electrodes. *Small*, **2015**, 11, 2631-5	11	41
13	Stabilizing Protic and Aprotic Liquid Electrolytes at High-Bandgap Oxide Interphases. *Chemistry of Materials*, **2018**, 30, 5655-5662	9.6	31
12	Synthesis and Properties of Poly-Ether/Ethylene Carbonate Electrolytes with High Oxidative Stability. *Chemistry of Materials*, **2019**, 31, 8466-8472	9.6	20
11	Fabrication of poly(lactide-co-glycolide) scaffold filled with fibrin gel, mesenchymal stem cells, and poly(ethylene oxide)-b-poly(L-lysine)/TGF-1 plasmid DNA complexes for cartilage restoration in vivo. *Journal of Biomedical Materials Research - Part A*, **2013**, 101, 3097-108	5.4	20
10	Nanoscale Elemental Mapping of Intact SolidLiquid Interfaces and Reactive Materials in Energy Devices Enabled by Cryo-FIB/SEM. *ACS Energy Letters*, **2020**, 5, 1224-1232	20.1	13
9	Influence of the molecular weight of poly(lactide-co-glycolide) on the in vivo cartilage repair by a construct of poly(lactide-co-glycolide)/fibrin gel/mesenchymal stem cells/transforming growth factor-1. *Tissue Engineering - Part A*, **2014**, 20, 1-11	3.9	13
8	Electroless Formation of Hybrid Lithium Anodes for Fast Interfacial Ion Transport. *Angewandte Chemie*, **2017**, 129, 13250-13257	3.6	10
7	Sodium Batteries: Highly Stable Sodium Batteries Enabled by Functional Ionic Polymer Membranes (Adv. Mater. 12/2017). *Advanced Materials*, **2017**, 29,	24	1
6	Probing the Native Structure and Chemistry of Dendrites and SEI Layers in Li-Metal Batteries by Cryo-FIB Lift-Out and Cryo-STEM. *Microscopy and Microanalysis*, **2018**, 24, 1518-1519	0.5	1

5	High-resolution Electron Imaging and Spectroscopy of Reactive Materials and Liquid-Solid Interfaces in Energy Storage Devices. *Microscopy and Microanalysis*, **2019**, 25, 2028-2029	0.5	1
4	Electronic structures and spectroscopy of sulfonated oligo(aryl ether ketones). *Computational and Theoretical Chemistry*, **2012**, 986, 1-5	2	1
3	Electronic structures and spectroscopic regularities of phenylene-modified SWCNTs. *Chemical Papers*, **2011**, 65,	1.9	1
2	Titelbild: Building Organic/Inorganic Hybrid Interphases for Fast Interfacial Transport in Rechargeable Metal Batteries (Angew. Chem. 4/2018). *Angewandte Chemie*, **2018**, 130, 863-863	3.6	
1	Revealing the Nanoscale Structure and Chemistry of Intact Solid-Liquid Interfaces in Electrochemical Energy Storage Devices by Cryo-FIB Lift-Out and Cryo-STEM. *Microscopy and Microanalysis*, **2017**, 23, 2004-2005	0.5	