Snehashis Choudhury

List of Publications by Year in Descending Order

47 papers	5,092 citations	31 h-index	49 g-index
49 ext. papers	6,198 ext. citations	16.9 avg, IF	6.3 L-index

#	Paper	IF	Citations
47	Effects of Polymer Coating Mechanics at Solid-Electrolyte Interphase for Stabilizing Lithium Metal Anodes. *Advanced Energy Materials*, **2022**, 12, 2103187	21.8	3
46	A Cation-Tethered Flowable Polymeric Interface for Enabling Stable Deposition of Metallic Lithium. *Journal of the American Chemical Society*, **2020**, 142, 21393-21403	16.4	24
45	Valence-Dependent Electrical Conductivity in a 3D Tetrahydroxyquinone-Based Metal-Organic Framework. *Journal of the American Chemical Society*, **2020**, 142, 21243-21248	16.4	12
44	Molecular design for electrolyte solvents enabling energy-dense and long-cycling lithium metal batteries. *Nature Energy*, **2020**, 5, 526-533	62.3	258
43	Regulating electrodeposition morphology of lithium: towards commercially relevant secondary Li metal batteries. *Chemical Society Reviews*, **2020**, 49, 2701-2750	58.5	160
42	Dendrite Suppression by a Polymer Coating: A Coarse-Grained Molecular Study. *Advanced Functional Materials*, **2020**, 30, 1910138	15.6	29
41	Structure, Rheology, and Electrokinetics of Soft Colloidal Suspension Electrolytes. *Langmuir*, **2020**, 36, 9047-9053	4	3
40	On the Reversibility and Fragility of Sodium Metal Electrodes. *Advanced Energy Materials*, **2019**, 9, 1901651	21.8	31
39	Solid-state polymer electrolytes for high-performance lithium metal batteries. *Nature Communications*, **2019**, 10, 4398	17.4	90
38	Nucleation and Early Stage Growth of Li Electrodeposits. *Nano Letters*, **2019**, 19, 8191-8200	11.5	81
37	Electrolytic vascular systems for energy-dense robots. *Nature*, **2019**, 571, 51-57	50.4	72
36	Electrokinetics in Viscoelastic Liquid Electrolytes above the Diffusion Limit. *Macromolecules*, **2019**, 52, 4666-4672	5.5	10
35	Stabilizing polymer electrolytes in high-voltage lithium batteries. *Nature Communications*, **2019**, 10, 3091	17.4	63
34	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
33	Microscopic Origins of Caging and Equilibration of Self-Suspended Hairy Nanoparticles. *Macromolecules*, **2019**, 52, 8187-8196	5.5	6
32	Designing Solid-Liquid Interphases for Sodium Batteries. *Springer Theses*, **2019**, 95-116	0.1	
31	Confining Electrodeposition of Metals in Structured Electrolytes. *Springer Theses*, **2019**, 59-79	0.1	1

30	Electroless Formation of Hybrid Lithium Anodes for High Interfacial Ion Transport. *Springer Theses*, **2019**, 117-135	0.1	
29	Soft Colloidal Glasses as Solid-State Electrolytes. *Springer Theses*, **2019**, 163-182	0.1	
28	Multifunctional Cross-Linked Polymeric Membranes for Safe, High-Performance Lithium Batteries. *Chemistry of Materials*, **2018**, 30, 2058-2066	9.6	39
27	Fast ion transport at solid–solid interfaces in hybrid battery anodes. *Nature Energy*, **2018**, 3, 310-316	62.3	313
26	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	
25	Design Principles of Functional Polymer Separators for High-Energy, Metal-Based Batteries. *Small*, **2018**, 14, e1703001	11	111
24	Soft Colloidal Glasses as Solid-State Electrolytes. *Chemistry of Materials*, **2018**, 30, 5996-6004	9.6	43
23	Stabilizing Protic and Aprotic Liquid Electrolytes at High-Bandgap Oxide Interphases. *Chemistry of Materials*, **2018**, 30, 5655-5662	9.6	31
22	Cryo-STEM mapping of solid-liquid interfaces and dendrites in lithium-metal batteries. *Nature*, **2018** , 560, 345-349	50.4	390
21	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
20	Building Organic/Inorganic Hybrid Interphases for Fast Interfacial Transport in Rechargeable Metal Batteries. *Angewandte Chemie - International Edition*, **2018**, 57, 992-996	16.4	139
19	Electrochemical Interphases for High-Energy Storage Using Reactive Metal Anodes. *Accounts of Chemical Research*, **2018**, 51, 80-88	24.3	114
18	Building Organic/Inorganic Hybrid Interphases for Fast Interfacial Transport in Rechargeable Metal Batteries. *Angewandte Chemie*, **2018**, 130, 1004-1008	3.6	44
17	Highly Stable Sodium Batteries Enabled by Functional Ionic Polymer Membranes. *Advanced Materials*, **2017**, 29, 1605512	24	151
16	Nanoporous Hybrid Electrolytes for High-Energy Batteries Based on Reactive Metal Anodes. *Advanced Energy Materials*, **2017**, 7, 1602367	21.8	95
15	Designer interphases for the lithium-oxygen electrochemical cell. *Science Advances*, **2017**, 3, e1602809	14.3	76
14	Sodium Batteries: Highly Stable Sodium Batteries Enabled by Functional Ionic Polymer Membranes (Adv. Mater. 12/2017). *Advanced Materials*, **2017**, 29,	24	1
13	Designing solid-liquid interphases for sodium batteries. *Nature Communications*, **2017**, 8, 898	17.4	212

12	Designing Artificial Solid-Electrolyte Interphases for Single-Ion and High-Efficiency Transport in Batteries. *Joule*, **2017**, 1, 394-406	27.8	146
11	Electroless Formation of Hybrid Lithium Anodes for Fast Interfacial Ion Transport. *Angewandte Chemie - International Edition*, **2017**, 56, 13070-13077	16.4	107
10	Electroless Formation of Hybrid Lithium Anodes for Fast Interfacial Ion Transport. *Angewandte Chemie*, **2017**, 129, 13250-13257	3.6	10
9	Multifunctional Separator Coatings for High-Performance Lithium–Sulfur Batteries. *Advanced Materials Interfaces*, **2016**, 3, 1600450	4.6	51
8	A stable room-temperature sodium-sulfur battery. *Nature Communications*, **2016**, 7, 11722	17.4	353
7	Design principles for electrolytes and interfaces for stable lithium-metal batteries. *Nature Energy*, **2016**, 1,	62.3	990
6	Lithium Fluoride Additives for Stable Cycling of Lithium Batteries at High Current Densities. *Advanced Electronic Materials*, **2016**, 2, 1500246	6.4	241
5	Interactions, Structure, and Dynamics of Polymer-Tethered Nanoparticle Blends. *Langmuir*, **2016**, 32, 8698-708	4	21
4	Self-suspended suspensions of covalently grafted hairy nanoparticles. *Langmuir*, **2015**, 31, 3222-31	4	34
3	A highly reversible room-temperature lithium metal battery based on crosslinked hairy nanoparticles. *Nature Communications*, **2015**, 6, 10101	17.4	333
2	A highly conductive, non-flammable polymer–nanoparticle hybrid electrolyte. *RSC Advances*, **2015**, 5, 20800-20809	3.7	56
1	Electronic and Chemical Properties of Germanene: The Crucial Role of Buckling. *Journal of Physical Chemistry C*, **2015**, 119, 3802-3809	3.8	105