H-G SteinrÃ¼ck

List of Publications by Year
in descending order

56 papers	2,093 citations	218677 26 h-index	243625 44 g-index
59 all docs	59 docs citations	59 times ranked	3252 citing authors

#	Article	IF	Citations
1	Conformal Pressure and Fast-Charging Li-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 040540.	2.9	8
2	Ammonium enables reversible aqueous Zn battery chemistries by tailoring the interphase. One Earth, 2022, 5, 413-421.	6.8	10
3	Combined Effects of Uniform Applied Pressure and Electrolyte Additives in Lithium-Metal Batteries. ACS Applied Energy Materials, 2022, 5, 8273-8281.	5.1	9
4	Visualization of dynamic polaronic strain fields in hybrid lead halide perovskites. Nature Materials, 2021, 20, 618-623.	27.5	96
5	Quantification of heterogeneous, irreversible lithium plating in extreme fast charging of lithium-ion batteries. Energy and Environmental Science, 2021, 14, 4979-4988.	30.8	58
6	Lamellar carbon-aluminosilicate nanocomposites with macroscopic orientation. Nanoscale, 2021, 13, 13650-13657.	5.6	0
7	A Review of Existing and Emerging Methods for Lithium Detection and Characterization in Liâ€Ion and Liâ€Metal Batteries. Advanced Energy Materials, 2021, 11, 2100372.	19.5	114
8	Water-in-Salt LiTFSI Aqueous Electrolytes. 1. Liquid Structure from Combined Molecular Dynamics Simulation and Experimental Studies. Journal of Physical Chemistry B, 2021, 125, 4501-4513.	2.6	52
9	Modeling cyclic voltammetry during solid electrolyte interphase formation: Baseline scenario of a dynamically evolving tunneling barrier resulting from a homogeneous single-phase insulating film. Journal of Chemical Physics, 2021, 154, 174703.	3.0	5
10	Oligothiophene Phosphonic Acids for Self-Assembled Monolayer Field-Effect Transistors. ACS Applied Materials & Interfaces, 2021, 13, 32461-32466.	8.0	7
11	Orientation-Dependent Distortion of Lamellae in a Block Copolymer Electrolyte under DC Polarization. Macromolecules, 2021, 54, 7808-7821.	4.8	12
12	Quantification of Efficiency in Lithium Metal Negative Electrodes via Operando X-ray Diffraction. Chemistry of Materials, 2021, 33, 7537-7545.	6.7	17
13	Water or Anion? Uncovering the Zn²⁺ Solvation Environment in Mixed Zn(TFSI)₂ and LiTFSI Water-in-Salt Electrolytes. ACS Energy Letters, 2021, 6, 3458-3463.	17.4	45
14	Toward Unraveling the Origin of Lithium Fluoride in the Solid Electrolyte Interphase. Chemistry of Materials, 2021, 33, 7315-7336.	6.7	39
15	Using In Situ High-Energy X-ray Diffraction to Quantify Electrode Behavior of Li-Ion Batteries from Extreme Fast Charging. ACS Applied Energy Materials, 2021, 4, 11590-11598.	5.1	17
16	Unraveling the Unconventional Order of a High-Mobility Indacenodithiopheneâ€“Benzothiadiazole Copolymer. ACS Macro Letters, 2021, 10, 1306-1314.	4.8	20
17	General relationship between salt concentration and x-ray absorption for binary electrolytes. AIP Advances, 2021, 11, .	1.3	2
18	Structural Origins of Light-Induced Phase Segregation in Organic-Inorganic Halide Perovskite Photovoltaic Materials. Matter, 2020, 2, 207-219.	10.0	128

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19	Interface between Waterâ€“Solvent Mixtures and a Hydrophobic Surface. Langmuir, 2020, 36, 12077-12086.	3.5	4
20	Impact of Processing on Structural and Compositional Evolution in Mixed Metal Halide Perovskites during Film Formation. Advanced Functional Materials, 2020, 30, 2001752.	14.9	39
21	Heterogeneous Behavior of Lithium Plating during Extreme Fast Charging. Cell Reports Physical Science, 2020, 1, 100114.	5.6	49
22	Advanced Characterization in Clean Water Technologies. Joule, 2020, 4, 1637-1659.	24.0	33
23	Understanding additive controlled lithium morphology in lithium metal batteries. Journal of Materials Chemistry A, 2020, 8, 16960-16972.	10.3	26
24	Interfacial Speciation Determines Interfacial Chemistry: Xâ€rayâ€Induced Lithium Fluoride Formation from Waterâ€inâ€salt Electrolytes on Solid Surfaces. Angewandte Chemie - International Edition, 2020, 59, 23180-23187.	13.8	28
25	Interfacial Speciation Determines Interfacial Chemistry: Xâ€rayâ€Induced Lithium Fluoride Formation from Waterâ€inâ€salt Electrolytes on Solid Surfaces. Angewandte Chemie, 2020, 132, 23380-23387.	2.0	9
26	Timeâ€Resolved Structural Kinetics of an Organic Mixed Ionicâ€“Electronic Conductor. Advanced Materials, 2020, 32, e2003404.	21.0	55
27	Concentration and velocity profiles in a polymeric lithium-ion battery electrolyte. Energy and Environmental Science, 2020, 13, 4312-4321.	30.8	43
28	GIWAXS-SIIRkit: scattering intensity, indexing and refraction calculation toolkit for grazing-incidence wide-angle X-ray scattering of organic materials. Journal of Applied Crystallography, 2020, 53, 1108-1129.	4.5	22
29	Toward quantifying capacity losses due to solid electrolyte interphase evolution in silicon thin film batteries. Journal of Chemical Physics, 2020, 152, 084702.	3.0	25
30	Crystallization and Organic Fieldâ€Effect Transistor Performance of a Hydrogenâ€Bonded Quaterthiophene. Chemistry - A European Journal, 2020, 26, 10265-10275.	3.3	5
31	Tortuosity Effects in Lithium-Metal Host Anodes. Joule, 2020, 4, 938-952.	24.0	150
32	Shedding X-ray Light on the Interfacial Electrochemistry of Silicon Anodes for Li-Ion Batteries. Accounts of Chemical Research, 2019, 52, 2673-2683.	15.6	25
33	Morphology of Organic Semiconductors Electrically Doped from Solution Using Phosphomolybdic Acid. Chemistry of Materials, 2019, 31, 6677-6683.	6.7	4
34	Solid Electrolyte Interphase on Native Oxide-Terminated Silicon Anodes for Li-Ion Batteries. Joule, 2019, 3, 762-781.	24.0	185
35	(Invited) X-Ray Reflectivity Studies of Interfaces in Lithium-Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
36	Fluoroethylene Carbonate Induces Ordered Electrolyte Interface on Silicon and Sapphire Surfaces as Revealed by Sum Frequency Generation Vibrational Spectroscopy and X-ray Reflectivity. Nano Letters, 2018, 18, 2105-2111.	9.1	42

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37	Surface structure evolution in a homologous series of ionic liquids. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1100-E1107.	7.1	42
38	The nanoscale structure of the electrolyteâ€“metal oxide interface. Energy and Environmental Science, 2018, 11, 594-602.	30.8	46
39	Novel ALD Chemistry Enabled Low-Temperature Synthesis of Lithium Fluoride Coatings for Durable Lithium Anodes. ACS Applied Materials & Interfaces, 2018, 10, 26972-26981.	8.0	99
40	Noble metal free photocatalytic H2 generation on black TiO2: On the influence of crystal facets vs. crystal damage. Applied Physics Letters, 2017, 110, .	3.3	16
41	The Atomic Scale Electrochemical Lithiation and Delithiation Process of Silicon. Advanced Materials Interfaces, 2017, 4, 1700771.	3.7	39
42	Memory Effect of Selfâ€Assembled PSâ€bâ€PEO Block Copolymer Films with Selectively Embedded Functionalized TiO₂ Nanoparticles. Advanced Materials Interfaces, 2017, 4, 1700230.	3.7	13
43	Effect of Structure and Disorder on the Charge Transport in Defined Self-Assembled Monolayers of Organic Semiconductors. ACS Nano, 2017, 11, 8747-8757.	14.6	23
44	Nanoscale Structure of the Oil-Water Interface. Physical Review Letters, 2016, 117, 256102.	7.8	28
45	In Situ Study of Silicon Electrode Lithiation with X-ray Reflectivity. Nano Letters, 2016, 16, 7394-7401.	9.1	66
46	In situ investigation of two-step nucleation and growth of CdS nanoparticles from solution. Nanoscale, 2015, 7, 11328-11333.	5.6	30
47	Structural Investigations of Self-Assembled Monolayers for Organic Electronics: Results from X-ray Reflectivity. Accounts of Chemical Research, 2015, 48, 1901-1908.	15.6	66
48	Order and Melting in Self-Assembled Alkanol Monolayers on Amorphous SiO₂. Journal of Physical Chemistry C, 2015, 119, 17648-17654.	3.1	16
49	Structure of n-Alkyltrichlorosilane Monolayers on Si(100)/SiO₂. Langmuir, 2015, 31, 11774-11780.	3.5	26
50	Tuning the molecular order of C₆₀-based self-assembled monolayers in field-effect transistors. Nanoscale, 2014, 6, 13022-13027.	5.6	26
51	Pseudorotational Epitaxy of Self-Assembled Octadecyltrichlorosilane Monolayers on Sapphire (0001). Physical Review Letters, 2014, 113, 156101.	7.8	16
52	Interface Engineering of Molecular Charge Storage Dielectric Layers for Organic Thinâ€Film Memory Transistors. Advanced Materials Interfaces, 2014, 1, 1400238.	3.7	8
53	Nanoscale Structure of Si/SiO₂/Organics Interfaces. ACS Nano, 2014, 8, 12676-12681.	14.6	36
54	Region-Selective Self-Assembly of Functionalized Carbon Allotropes from Solution. ACS Nano, 2013, 7, 11427-11434.	14.6	21

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55	Lowâ€Voltage Selfâ€Assembled Monolayer Fieldâ€Effect Transistors on Flexible Substrates. Advanced Materials, 2013, 25, 4511-4514.	21.0	78
56	Oxygen diffusivity in silicon derived from dynamical X-ray diffraction. Journal of Applied Physics, 2013, 113, 073508.	2.5	9