

Jeffrey Lopez

List of Publications by Year in descending order

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43
papers

9,612
citations

147786
31
h-index

265191
42
g-index

43
all docs

43
docs citations

43
times ranked

11311
citing authors

#	ARTICLE	IF	CITATIONS
1	Accelerating amorphous polymer electrolyte screening by learning to reduce errors in molecular dynamics simulated properties. Nature Communications, 2022, 13, .	12.8	18
2	Molecularly Tunable Polyanions for Single-Ion Conductors and Poly(solvate ionic liquids). Chemistry of Materials, 2021, 33, 524-534.	6.7	53
3	Strategies towards enabling lithium metal in batteries: interphases and electrodes. Energy and Environmental Science, 2021, 14, 5289-5314.	30.8	156
4	Ultra-high-voltage Ni-rich layered cathodes in practical Li metal batteries enabled by a sulfonamide-based electrolyte. Nature Energy, 2021, 6, 495-505.	39.5	323
5	The passivity of lithium electrodes in liquid electrolytes for secondary batteries. Nature Reviews Materials, 2021, 6, 1036-1052.	48.7	201
6	Moving beyond 99.9% Coulombic efficiency for lithium anodes in liquid electrolytes. Nature Energy, 2021, 6, 951-960.	39.5	237
7	FSI-inspired solvent and "full fluorosulfonyl" electrolyte for 4 V class lithium-metal batteries. Energy and Environmental Science, 2020, 13, 212-220.	30.8	198
8	An N-Heterocyclic Carbene-Derived Distonic Radical Cation. Angewandte Chemie, 2020, 132, 3980-3983.	2.0	4
9	An N-Heterocyclic Carbene-Derived Distonic Radical Cation. Angewandte Chemie - International Edition, 2020, 59, 3952-3955.	13.8	16
10	Quantitative Mapping of Molecular Substituents to Macroscopic Properties Enables Predictive Design of Oligoethylene Glycol-Based Lithium Electrolytes. ACS Central Science, 2020, 6, 1115-1128.	11.3	15
11	Solvent- and Anion-Dependent Li^+O_2 Coupling Strength and Implications on the Thermodynamics and Kinetics of Li^+O_2 Batteries. Journal of Physical Chemistry C, 2020, 124, 4953-4967.	3.1	29
12	Design of S-Substituted Fluorinated Aryl Sulfonamide-Tagged (S-FAST) Anions To Enable New Solvate Ionic Liquids for Battery Applications. Chemistry of Materials, 2019, 31, 7558-7564.	6.7	11
13	Stretchable self-healable semiconducting polymer film for active-matrix strain-sensing array. Science Advances, 2019, 5, eaav3097.	10.3	179
14	Concentrated Electrolytes for Enhanced Stability of Al-Alloy Negative Electrodes in Li-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A1867-A1874.	2.9	28
15	Characterization of Hydrogen Bonding Formation and Breaking in Semiconducting Polymers under Mechanical Strain. Macromolecules, 2019, 52, 2476-2486.	4.8	54
16	Multi-scale ordering in highly stretchable polymer semiconducting films. Nature Materials, 2019, 18, 594-601.	27.5	251
17	Designing polymers for advanced battery chemistries. Nature Reviews Materials, 2019, 4, 312-330.	48.7	579
18	High-Rate and Large-Capacity Lithium Metal Anode Enabled by Volume Conformal and Self-Healable Composite Polymer Electrolyte. Advanced Science, 2019, 6, 1802353.	11.2	133

#	ARTICLE	IF	CITATIONS
19	Decoupling of mechanical properties and ionic conductivity in supramolecular lithium ion conductors. <i>Nature Communications</i> , 2019, 10, 5384.	12.8	249
20	In Situ Characterization of the Lithium Metal Interface. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
21	Skin electronics from scalable fabrication of an intrinsically stretchable transistor array. <i>Nature</i> , 2018, 555, 83-88.	27.8	1,588
22	An Aqueous Inorganic Polymer Binder for High Performance Lithium–Sulfur Batteries with Flame-Retardant Properties. <i>ACS Central Science</i> , 2018, 4, 260-267.	11.3	147
23	Tough and Water-Insensitive Self-Healing Elastomer for Robust Electronic Skin. <i>Advanced Materials</i> , 2018, 30, e1706846.	21.0	798
24	Ionically Conductive Self-Healing Binder for Low Cost Si Microparticles Anodes in Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1703138.	19.5	224
25	Ultrasensitive artificial synapse based on conjugated polyelectrolyte. <i>Nano Energy</i> , 2018, 48, 575-581.	16.0	85
26	Quadruple H-Bonding Cross-Linked Supramolecular Polymeric Materials as Substrates for Stretchable, Antitearing, and Self-Healable Thin Film Electrodes. <i>Journal of the American Chemical Society</i> , 2018, 140, 5280-5289.	13.7	464
27	A Dual-Crosslinking Design for Resilient Lithium-Ion Conductors. <i>Advanced Materials</i> , 2018, 30, e1804142.	21.0	128
28	An Elastic Autonomous Self-Healing Capacitive Sensor Based on a Dynamic Dual Crosslinked Chemical System. <i>Advanced Materials</i> , 2018, 30, e1801435.	21.0	280
29	Nonhalogenated Solvent Processable and Printable High-Performance Polymer Semiconductor Enabled by Isomeric Nonconjugated Flexible Linkers. <i>Macromolecules</i> , 2018, 51, 4976-4985.	4.8	68
30	Crosslinked Poly(tetrahydrofuran) as a Loosely Coordinating Polymer Electrolyte. <i>Advanced Energy Materials</i> , 2018, 8, 1800703.	19.5	177
31	Effects of Polymer Coatings on Electrodeposited Lithium Metal. <i>Journal of the American Chemical Society</i> , 2018, 140, 11735-11744.	13.7	307
32	High-performance sodium-organic battery by realizing four-sodium storage in disodium rhodizonate. <i>Nature Energy</i> , 2017, 2, 861-868.	39.5	372
33	Intrinsically stretchable and healable semiconducting polymer for organic transistors. <i>Nature</i> , 2016, 539, 411-415.	27.8	1,030
34	High-Performance Lithium Metal Negative Electrode with a Soft and Flowable Polymer Coating. <i>ACS Energy Letters</i> , 2016, 1, 1247-1255.	17.4	281
35	Fast and reversible thermoresponsive polymer switching materials for safer batteries. <i>Nature Energy</i> , 2016, 1, .	39.5	253
36	A Stretchable Graphitic Carbon/Si Anode Enabled by Conformal Coating of a Self-Healing Elastic Polymer. <i>Advanced Materials</i> , 2016, 28, 2455-2461.	21.0	197

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37	Nonâ€Conjugated Flexible Linkers in Semiconducting Polymers: A Pathway to Improved Processability without Compromising Device Performance. <i>Advanced Electronic Materials</i> , 2016, 2, 1600104.	5.1	65
38	The Effects of Cross-Linking in a Supramolecular Binder on Cycle Life in Silicon Microparticle Anodes. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 2318-2324.	8.0	90
39	Shapeâ€Controlled, Selfâ€Wrapped Carbon Nanotube 3D Electronics. <i>Advanced Science</i> , 2015, 2, 1500103.	11.2	32
40	Significance of the double-layer capacitor effect in polar rubbery dielectrics and exceptionally stable low-voltage high transconductance organic transistors. <i>Scientific Reports</i> , 2015, 5, 17849.	3.3	66
41	Highâ€Arealâ€Capacity Silicon Electrodes with Lowâ€Cost Silicon Particles Based on Spatial Control of Selfâ€Healing Binder. <i>Advanced Energy Materials</i> , 2015, 5, 1401826.	19.5	207
42	Direct mapping of local redox current density on a monolith electrode by laser scanning. <i>Biosensors and Bioelectronics</i> , 2013, 47, 408-414.	10.1	10
43	Fabrication and Properties of Redox Ion Doped Few Monolayer Thick Polyelectrolyte Film for Electrochemical Biosensors at High Sensitivity and Specificity. <i>Electroanalysis</i> , 2013, 25, 1557-1566.	2.9	9