Jeffrey Lopez

List of Publications by Year
in descending order

43	9,612	168829	299063
papers	citations	31 h-index	42 g-index

43	43	43	13320
all docs	docs citations	times ranked	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, .	5.8	18
2	Molecularly Tunable Polyanions for Single-Ion Conductors and Poly(solvate ionic liquids). Chemistry of Materials, 2021, 33, 524-534.	3.2	53
3	Strategies towards enabling lithium metal in batteries: interphases and electrodes. Energy and Environmental Science, 2021, 14, 5289-5314.	15.6	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.	19.8	323
5	The passivity of lithium electrodes in liquid electrolytes for secondary batteries. Nature Reviews Materials, 2021, 6, 1036-1052.	23.3	201
6	Moving beyond 99.9% Coulombic efficiency for lithium anodes in liquid electrolytes. Nature Energy, 2021, 6, 951-960.	19.8	237
7	FSI-inspired solvent and â€œfull fluorosulfonylâ€•electrolyte for 4 V class lithium-metal batteries. Energy and Environmental Science, 2020, 13, 212-220.	15.6	198
8	An Nâ€Heterocyclicâ€Carbeneâ€Derived Distonic Radical Cation. Angewandte Chemie, 2020, 132, 3980-3983.	1.6	4
9	An Nâ€Heterocyclicâ€Carbeneâ€Derived Distonic Radical Cation. Angewandte Chemie - International Edition, 2020, 59, 3952-3955.	7.2	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.	5.3	15
11	Solvent- and Anion-Dependent Li⁺â€“O₂^{â€“} Coupling Strength and Implications on the Thermodynamics and Kinetics of Liâ€“O₂ Batteries. Journal of Physical Chemistry C, 2020, 124, 4953-4967.	1.5	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.	3.2	11
13	Stretchable self-healable semiconducting polymer film for active-matrix strain-sensing array. Science Advances, 2019, 5, eaav3097.	4.7	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.	1.3	28
15	Characterization of Hydrogen Bonding Formation and Breaking in Semiconducting Polymers under Mechanical Strain. Macromolecules, 2019, 52, 2476-2486.	2.2	54
16	Multi-scale ordering in highly stretchable polymer semiconducting films. Nature Materials, 2019, 18, 594-601.	13.3	251
17	Designing polymers for advanced battery chemistries. Nature Reviews Materials, 2019, 4, 312-330.	23.3	579
18	Highâ€Rate and Largeâ€Capacity Lithium Metal Anode Enabled by Volume Conformal and Selfâ€Healable Composite Polymer Electrolyte. Advanced Science, 2019, 6, 1802353.	5.6	133

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19	Decoupling of mechanical properties and ionic conductivity in supramolecular lithium ion conductors. Nature Communications, 2019, 10, 5384.	5.8	249
20	In Situ Characterization of the Lithium Metal Interface. ECS Meeting Abstracts, 2019, , .	0.0	0
21	Skin electronics from scalable fabrication of an intrinsically stretchable transistor array. Nature, 2018, 555, 83-88.	13.7	1,588
22	An Aqueous Inorganic Polymer Binder for High Performance Lithiumâ€“Sulfur Batteries with Flame-Retardant Properties. ACS Central Science, 2018, 4, 260-267.	5.3	147
23	Tough and Waterâ€Insensitive Selfâ€Healing Elastomer for Robust Electronic Skin. Advanced Materials, 2018, 30, e1706846.	11.1	798
24	Ionically Conductive Selfâ€Healing Binder for Low Cost Si Microparticles Anodes in Liâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1703138.	10.2	224
25	Ultrasensitive artificial synapse based on conjugated polyelectrolyte. Nano Energy, 2018, 48, 575-581.	8.2	85
26	Quadruple H-Bonding Cross-Linked Supramolecular Polymeric Materials as Substrates for Stretchable, Antitearing, and Self-Healable Thin Film Electrodes. Journal of the American Chemical Society, 2018, 140, 5280-5289.	6.6	464
27	A Dualâ€Crosslinking Design for Resilient Lithiumâ€Ion Conductors. Advanced Materials, 2018, 30, e1804142.	11.1	128
28	An Elastic Autonomous Selfâ€Healing Capacitive Sensor Based on a Dynamic Dual Crosslinked Chemical System. Advanced Materials, 2018, 30, e1801435.	11.1	280
29	Nonhalogenated Solvent Processable and Printable High-Performance Polymer Semiconductor Enabled by Isomeric Nonconjugated Flexible Linkers. Macromolecules, 2018, 51, 4976-4985.	2.2	68
30	Crosslinked Poly(tetrahydrofuran) as a Loosely Coordinating Polymer Electrolyte. Advanced Energy Materials, 2018, 8, 1800703.	10.2	177
31	Effects of Polymer Coatings on Electrodeposited Lithium Metal. Journal of the American Chemical Society, 2018, 140, 11735-11744.	6.6	307
32	High-performance sodiumâ€“organic battery by realizing four-sodium storage in disodium rhodizonate. Nature Energy, 2017, 2, 861-868.	19.8	372
33	Intrinsically stretchable and healable semiconducting polymer for organic transistors. Nature, 2016, 539, 411-415.	13.7	1,030
34	High-Performance Lithium Metal Negative Electrode with a Soft and Flowable Polymer Coating. ACS Energy Letters, 2016, 1, 1247-1255.	8.8	281
35	Fast and reversible thermoresponsive polymer switching materials for safer batteries. Nature Energy, 2016, 1, .	19.8	253
36	A Stretchable Graphitic Carbon/Si Anode Enabled by Conformal Coating of a Selfâ€Healing Elastic Polymer. Advanced Materials, 2016, 28, 2455-2461.	11.1	197

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37	Nonâ€Conjugated Flexible Linkers in Semiconducting Polymers: A Pathway to Improved Processability without Compromising Device Performance. Advanced Electronic Materials, 2016, 2, 1600104.	2.6	65
38	The Effects of Cross-Linking in a Supramolecular Binder on Cycle Life in Silicon Microparticle Anodes. ACS Applied Materials & Interfaces, 2016, 8, 2318-2324.	4.0	90
39	Shapeâ€Controlled, Selfâ€Wrapped Carbon Nanotube 3D Electronics. Advanced Science, 2015, 2, 1500103.	5.6	32
40	Significance of the double-layer capacitor effect in polar rubbery dielectrics and exceptionally stable low-voltage high transconductance organic transistors. Scientific Reports, 2015, 5, 17849.	1.6	66
41	Highâ€Arealâ€Capacity Silicon Electrodes with Lowâ€Cost Silicon Particles Based on Spatial Control of Selfâ€Healing Binder. Advanced Energy Materials, 2015, 5, 1401826.	10.2	207
42	Direct mapping of local redox current density on a monolith electrode by laser scanning. Biosensors and Bioelectronics, 2013, 47, 408-414.	5.3	10
43	Fabrication and Properties of Redox Ion Doped Few Monolayer Thick Polyelectrolyte Film for Electrochemical Biosensors at High Sensitivity and Specificity. Electroanalysis, 2013, 25, 1557-1566.	1.5	9