

Ethan C Self

List of Publications by Year in descending order

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51
papers

1,173
citations

430874

18
h-index

454955

30
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55
all docs

55
docs citations

55
times ranked

1656
citing authors

#	ARTICLE	IF	CITATIONS
1	Next-Generation Cobalt-Free Cathodes – A Prospective Solution to the Battery Industry's Cobalt Problem. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	71
2	Membrane design for non-aqueous redox flow batteries: Current status and path forward. <i>Chem</i> , 2022, 8, 1611-1636.	11.7	16
3	Selective Plasticization of Poly (ethylene oxide) (PEO) Block in Nanostructured Polystyrene- <i>b</i> -PEO Polystyrene Triblock Copolymer Electrolytes. <i>Journal of the Electrochemical Society</i> , 2022, 169, 050506.	2.9	1
4	(Digital Presentation) Sol-Gel Based Synthesis Route for High Capacity Disordered Rocksalt (DRX) Oxyfluoride Cathodes. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 2242-2242.	0.0	0
5	(Invited) Initial Capacity Loss Mechanism of All-Solid-State Lithium Sulfide Battery Unraveled By in Situ Neutron Tomography. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 205-205.	0.0	0
6	Understanding cation-disordered rocksalt oxyfluoride cathodes. <i>Journal of Materials Chemistry A</i> , 2021, 9, 7826-7837.	10.3	21
7	Calibration-Free Quantitative Analysis of Lithium-Ion Battery (LiB) Electrode Materials Using Laser-Induced Breakdown Spectroscopy (LIBS). <i>ACS Applied Energy Materials</i> , 2021, 4, 7259-7267.	5.1	8
8	Formation of LiF Surface Layer During Direct Fluorination of High-Capacity Co-Free Disordered Rocksalt Cathodes. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 38221-38228.	8.0	13
9	Ambient Temperature Sodium Polysulfide Catholyte for Nonaqueous Redox Flow Batteries. <i>Journal of the Electrochemical Society</i> , 2021, 168, 080540.	2.9	7
10	Heavily Tungsten-Doped Sodium Thioantimonate Solid-State Electrolytes with Exceptionally Low Activation Energy for Ionic Diffusion. <i>Angewandte Chemie</i> , 2021, 133, 26362-26370.	2.0	2
11	Heavily Tungsten-Doped Sodium Thioantimonate Solid-State Electrolytes with Exceptionally Low Activation Energy for Ionic Diffusion. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26158-26166.	13.8	18
12	Synthesis of model sodium sulfide films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, 053404.	2.1	3
13	Investigation of glass-ceramic lithium thiophosphate solid electrolytes using NMR and neutron scattering. <i>Materials Today Physics</i> , 2021, 21, 100478.	6.0	5
14	Unraveling Ion Transport in Pentablock Copolymer Membranes for Non-Aqueous Redox Flow Batteries. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 109-109.	0.0	0
15	Composite Cathodes for All-Solid-State Batteries Containing Lithium Thiophosphate Separators. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 359-359.	0.0	0
16	Ambient Temperature Sodium Polysulfide Catholyte for Nonaqueous Redox Flow Batteries. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 116-116.	0.0	0
17	Chemical stability and long-term cell performance of low-cobalt, Ni-Rich cathodes prepared by aqueous processing for high-energy Li-Ion batteries. <i>Energy Storage Materials</i> , 2020, 24, 188-197.	18.0	155
18	Site-Specific Sodiation Mechanisms of Selenium in Microporous Carbon Host. <i>Nano Letters</i> , 2020, 20, 918-928.	9.1	30

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19	New synthesis strategies to improve Co-Free LiNi _{0.5} Mn _{0.5} O ₂ cathodes: Early transition metal dO dopants and manganese pyrophosphate coating. <i>Journal of Power Sources</i> , 2020, 479, 228591.	7.8	22
20	Lithium Iron Aluminum Nickelate, LiNi _x Fe _y Al _z O ₂ "New Sustainable Cathodes for Next-Generation Cobalt-Free Li-Ion Batteries. <i>Advanced Materials</i> , 2020, 32, e2002960.	21.0	77
21	Direct Measure of Electrode Spatial Heterogeneity: Influence of Processing Conditions on Anode Architecture and Performance. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 55954-55970.	8.0	21
22	Solvent-Mediated Synthesis of Amorphous Li ₃ PS ₄ /Polyethylene Oxide Composite Solid Electrolytes with High Li ⁺ Conductivity. <i>Chemistry of Materials</i> , 2020, 32, 8789-8797.	6.7	21
23	Cathode "Sulfide Solid Electrolyte Interfacial Instability: Challenges and Solutions. <i>Frontiers in Energy Research</i> , 2020, 0, .	2.3	4
24	Investigation of Complex Intermediates in Solvent-Mediated Synthesis of Thiophosphate Solid-State Electrolytes. <i>Journal of Physical Chemistry C</i> , 2020, 124, 27396-27402.	3.1	9
25	Hidden Subsurface Reconstruction and Its Atomic Origins in Layered Oxide Cathodes. <i>Microscopy and Microanalysis</i> , 2020, 26, 2542-2544.	0.4	0
26	Synthesizing High-Capacity Oxyfluoride Conversion Anodes by Direct Fluorination of Molybdenum Dioxide (MoO ₂). <i>ChemSusChem</i> , 2020, 13, 3825-3834.	6.8	12
27	Hidden Subsurface Reconstruction and Its Atomic Origins in Layered Oxide Cathodes. <i>Nano Letters</i> , 2020, 20, 2756-2762.	9.1	24
28	(Invited) Investigations on Sulfide Solid-Electrolyte Cathode Interfaces. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 888-888.	0.0	0
29	Interfacial Reactions and Performance of Li ₇ La ₃ Zr ₂ O ₁₂ -Stabilized Li "Sulfur Hybrid Cell. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 42042-42048.	8.0	34
30	Atomic-Scale Mechanisms of Enhanced Electrochemical Properties of Mo-Doped Co-Free Layered Oxide Cathodes for Lithium-Ion Batteries. <i>ACS Energy Letters</i> , 2019, 4, 2540-2546.	17.4	40
31	High-Capacity Organic Radical Mediated Phosphorus Anode for Sodium-Based Redox Flow Batteries. <i>ACS Energy Letters</i> , 2019, 4, 2593-2600.	17.4	32
32	Tailored crosslinking of Poly(ethylene oxide) enables mechanical robustness and improved sodium-ion conductivity. <i>Energy Storage Materials</i> , 2019, 21, 85-96.	18.0	43
33	Selenium-sulfur (SeS) fast charging cathode for sodium and lithium metal batteries. <i>Energy Storage Materials</i> , 2019, 20, 71-79.	18.0	50
34	Structural and Electrochemical Characterization of Thin Film Li ₂ MoO ₃ Electrodes. <i>Journal of the Electrochemical Society</i> , 2019, 166, A1015-A1021.	2.9	2
35	Sodium Thiophosphate Cathodes and Polymeric Membranes for High Energy Density Redox Flow Batteries. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
36	The Impact of Selectively Plasticized Poly (ethylene oxide) (PEO) Block in Nanostructured Polystyrene~PEO~Polystyrene Triblock Copolymer Electrolytes. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0

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37	Mechanically Robust Crosslinked Membranes for Non-Aqueous Redox Flow Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
38	Design of Mechanically Robust Polymer Membranes for Non-Aqueous Flow Battery. ECS Meeting Abstracts, 2019, , .	0.0	0
39	Structural and Electrochemical Characterization of Thin Film Li ₂ MoO ₃ Cathodes. ECS Meeting Abstracts, 2019, , .	0.0	0
40	Investigating the Origin of Cation Mixing in Nickel Rich Cathodes. ECS Meeting Abstracts, 2019, , .	0.0	0
41	(Invited) Thiophosphate Based Solid Electrolytes and Cathodes Interfaces. ECS Meeting Abstracts, 2019, , .	0.0	0
42	New Si Nanofiber Mat Designs for Li-Ion Battery Anodes. ECS Meeting Abstracts, 2019, , .	0.0	0
43	Synthesis and Electrochemical and Structural Investigations of Oxidatively Stable Li ₂ MoO ₃ and Li ₂ MoO ₃ ·(1- ϵ)Tj ETQq1 1 0.7843146rgBT /Overclock 10T	0.0	0
44	Anion Radical Mediated High Capacity Redox Flow Battery. ECS Meeting Abstracts, 2018, , .	0.0	0
45	High Areal Capacity Si/LiCoO ₂ Batteries from Electrospun Composite Fiber Mats. ChemSusChem, 2017, 10, 1823-1831.	6.8	22
46	Unrivaled combination of surface area and pore volume in micelle-templated carbon for supercapacitor energy storage. Journal of Materials Chemistry A, 2017, 5, 13511-13525.	10.3	63
47	Oxygen Stability of Disordered, Multi-Lithium Oxide Cathodes for Li-Ion Batteries. ECS Meeting Abstracts, 2017, , .	0.0	0
48	High Performance Particle/Polymer Nanofiber Anodes for Li-Ion Batteries using Electrospinning. ChemSusChem, 2016, 9, 208-215.	6.8	11
49	LiCoO ₂ -Based Fiber Cathodes for Electrospun Full Cell Li-ion Batteries. Electrochimica Acta, 2016, 214, 139-146.	5.2	28
50	Electrospun titania-based fibers for high areal capacity Li-ion battery anodes. Journal of Power Sources, 2015, 282, 187-193.	7.8	49
51	Challenges for and Pathways toward Li-Metal-Based All-Solid-State Batteries. ACS Energy Letters, 0, , 1399-1404.	17.4	228