Robert Kerr

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Highly stable lithium anodes from recycled hemp textile. Chemical Communications, 2022, 58, 1946-1949.	4.1	4
2	Effect of vinylene carbonate electrolyte additive and battery cycling protocol on the electrochemical and cyclability performance of silicon thin-film anodes. Journal of Energy Storage, 2022, 46, 103868.	8.1	6
3	Morphological Evolution and Solidâ€“Electrolyte Interphase Formation on LiNi_{0.6}Mn_{0.2}Co_{0.2}O₂ Cathodes Using Highly Concentrated Ionic Liquid Electrolytes. ACS Applied Materials & Interfaces, 2022, 14, 13196-13205.	8.0	9
4	Fast Charge and High Stability of Solidâ€State Graphite Organic Ionic Plastic Crystal Composite Anodes. Batteries and Supercaps, 2022, 5, .	4.7	5
5	Cover Picture: Fast Charge and High Stability of Solidâ€State Graphite Organic Ionic Plastic Crystal Composite Anodes (Batteries & Supercaps 7/2022). Batteries and Supercaps, 2022, 5, .	4.7	1
6	Understanding the Role of Separator and Electrolyte Compatibility on Lithium Metal Anode Performance Using Ionic Liquid-Based Electrolytes. ACS Applied Energy Materials, 2021, 4, 6310-6323.	5.1	12
7	Tuning the Formation and Structure of the Silicon Electrode/Ionic Liquid Electrolyte Interphase in Superconcentrated Ionic Liquids. ACS Applied Materials & Interfaces, 2021, 13, 28281-28294.	8.0	21
8	Improving Cycle Life through Fast Formation Using a Superconcentrated Phosphonium Based Ionic Liquid Electrolyte for Anode-Free and Lithium Metal Batteries. ACS Applied Energy Materials, 2021, 4, 6399-6407.	5.1	16
9	Doped and reactive silicon thin film anodes for lithium ion batteries: A review. Journal of Power Sources, 2021, 506, 230194.	7.8	40
10	Application of super-concentrated phosphonium based ionic liquid electrolyte for anode-free lithium metal batteries. Sustainable Energy and Fuels, 2021, 5, 4141-4152.	4.9	11
11	Physical Vapor Deposition Cluster Arrival Energy Enhances the Electrochemical Performance of Silicon Thin-Film Anodes for Li-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 12243-12256.	5.1	3
12	Solid (cyanomethyl)trimethylammonium salts for electrochemically stable electrolytes for lithium metal batteries. Journal of Materials Chemistry A, 2020, 8, 14721-14735.	10.3	9
13	Compressively Stressed Silicon Nanoclusters as an Antifracture Mechanism for High-Performance Lithium-Ion Battery Anodes. ACS Applied Materials & Interfaces, 2020, 12, 39195-39204.	8.0	11
14	Enhanced ion transport in an ether aided super concentrated ionic liquid electrolyte for long-life practical lithium metal battery applications. Journal of Materials Chemistry A, 2020, 8, 18826-18839.	10.3	40
15	Toward Highâ€Energyâ€Density Lithium Metal Batteries: Opportunities and Challenges for Solid Organic Electrolytes. Advanced Materials, 2020, 32, e1905219.	21.0	154
16	Macrophase-Separated Organic Ionic Plastic Crystals/PAMPS-Based Ionomer Electrolyte: A New Design Perspective for Flexible and Highly Conductive Solid-State Electrolytes. ACS Omega, 2020, 5, 2931-2938.	3.5	4
17	Structuring PEDOT Hollow Nanosphere Electrodes for High Specific Energy Li-Metal|Polymer Thin-Film Batteries. ACS Applied Nano Materials, 2020, 3, 3820-3828.	5.0	5
18	Editorsâ€™ Choiceâ€”Understanding the Superior Cycling Performance of Si Anode in Highly Concentrated Phosphonium-Based Ionic Liquid Electrolyte. Journal of the Electrochemical Society, 2020, 167, 120520.	2.9	23

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19	Electrochemical Formation in Super-Concentrated Phosphonium Based Ionic Liquid Electrolyte Using Symmetric Li-Metal Coin Cells. Journal of the Electrochemical Society, 2020, 167, 120526.	2.9	16
20	Toward Practical Li Metal Batteries: Importance of Separator Compatibility Using Ionic Liquid Electrolytes. ACS Applied Energy Materials, 2019, 2, 6655-6663.	5.1	29
21	Artificial SEI Transplantation: A Pathway to Enabling Lithium Metal Cycling in Water-Containing Electrolytes. ACS Applied Energy Materials, 2019, 2, 8912-8918.	5.1	6
22	Enabling High Lithium Conductivity in Polymerized Ionic Liquid Block Copolymer Electrolytes. Batteries and Supercaps, 2019, 2, 132-138.	4.7	28
23	Pure silicon thin-film anodes for lithium-ion batteries: A review. Journal of Power Sources, 2019, 414, 48-67.	7.8	147
24	Cation effect on small phosphonium based ionic liquid electrolytes with high concentrations of lithium salt. Journal of Chemical Physics, 2018, 148, 193813.	3.0	17
25	Towards thermally stable high performance lithium-ion batteries: the combination of a phosphonium cation ionic liquid and a 3D porous molybdenum disulfide/graphene electrode. Chemical Communications, 2018, 54, 5338-5341.	4.1	10
26	Water-tolerant lithium metal cycling in high lithium concentration phosphonium-based ionic liquid electrolytes. Sustainable Energy and Fuels, 2018, 2, 2276-2283.	4.9	27
27	Understanding of the Electrogenerated Bulk Electrolyte Species in Sodium-Containing Ionic Liquid Electrolytes During the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2017, 121, 23307-23316.	3.1	17
28	High-Capacity Retention of Si Anodes Using a Mixed Lithium/Phosphonium Bis(fluorosulfonyl)imide Ionic Liquid Electrolyte. ACS Energy Letters, 2017, 2, 1804-1809.	17.4	38
29	Lifetime and degradation of high temperature PEM membrane electrode assemblies. International Journal of Hydrogen Energy, 2015, 40, 16860-16866.	7.1	33
30	The Reduction of Oxygen on Iron(II) Oxide/Poly(3,4-ethylenedioxythiophene) Composite Thin Film Electrodes. Electrochimica Acta, 2015, 154, 142-148.	5.2	24
31	Tuning the morphology of electroactive polythiophene nano-structures. Reactive and Functional Polymers, 2015, 86, 60-66.	4.1	7
32	Performance of the High Temperature PEM Membrane Electrode Assembly. ECS Transactions, 2014, 64, 973-982.	0.5	3
33	Novel polymerisation of conducting thienothiophenes via vapour phase polymerisation: a comparative study. RSC Advances, 2014, 4, 57754-57758.	3.6	2
34	Determining the platinum loading and distribution of industrial scale polymer electrolyte membrane fuel cell electrodes using low energy X-ray imaging. Journal of Power Sources, 2014, 270, 208-212.	7.8	4
35	Alcohol vapour detection at the three phase interface using enzyme-conducting polymer composites. Biosensors and Bioelectronics, 2014, 52, 143-146.	10.1	17
36	Influence of the Polymerization Method on the Oxygen Reduction Reaction Pathway on PEDOT. ECS Electrochemistry Letters, 2013, 2, F29-F31.	1.9	31

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37	PdNi Hollow Nanoparticles for Improved Electrocatalytic Oxygen Reduction in Alkaline Environments. ACS Applied Materials & Interfaces, 2013, 5, 12708-12715.	8.0	108
38	Designed electrodeposition of nanoparticles inside conducting polymers. Journal of Materials Chemistry, 2012, 22, 19767.	6.7	32
39	Dye-sensitized nickel(II)oxide photocathodes for tandem solar cell applications. Nanotechnology, 2008, 19, 295304.	2.6	160