

# Robert Kerr

## List of Publications by Year in descending order

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Version: 2024-02-01

39  
papers

1,130  
citations

471509

17  
h-index

395702

33  
g-index

39  
all docs

39  
docs citations

39  
times ranked

1863  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dye-sensitized nickel(II)oxide photocathodes for tandem solar cell applications. <i>Nanotechnology</i> , 2008, 19, 295304.	2.6	160
2	Toward High-Energy-Density Lithium Metal Batteries: Opportunities and Challenges for Solid Organic Electrolytes. <i>Advanced Materials</i> , 2020, 32, e1905219.	21.0	154
3	Pure silicon thin-film anodes for lithium-ion batteries: A review. <i>Journal of Power Sources</i> , 2019, 414, 48-67.	7.8	147
4	PdNi Hollow Nanoparticles for Improved Electrocatalytic Oxygen Reduction in Alkaline Environments. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 12708-12715.	8.0	108
5	Enhanced ion transport in an ether aided super concentrated ionic liquid electrolyte for long-life practical lithium metal battery applications. <i>Journal of Materials Chemistry A</i> , 2020, 8, 18826-18839.	10.3	40
6	Doped and reactive silicon thin film anodes for lithium ion batteries: A review. <i>Journal of Power Sources</i> , 2021, 506, 230194.	7.8	40
7	High-Capacity Retention of Si Anodes Using a Mixed Lithium/Phosphonium Bis(fluorosulfonyl)imide Ionic Liquid Electrolyte. <i>ACS Energy Letters</i> , 2017, 2, 1804-1809.	17.4	38
8	Lifetime and degradation of high temperature PEM membrane electrode assemblies. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 16860-16866.	7.1	33
9	Designed electrodeposition of nanoparticles inside conducting polymers. <i>Journal of Materials Chemistry</i> , 2012, 22, 19767.	6.7	32
10	Influence of the Polymerization Method on the Oxygen Reduction Reaction Pathway on PEDOT. <i>ECS Electrochemistry Letters</i> , 2013, 2, F29-F31.	1.9	31
11	Toward Practical Li Metal Batteries: Importance of Separator Compatibility Using Ionic Liquid Electrolytes. <i>ACS Applied Energy Materials</i> , 2019, 2, 6655-6663.	5.1	29
12	Enabling High Lithium Conductivity in Polymerized Ionic Liquid Block Copolymer Electrolytes. <i>Batteries and Supercaps</i> , 2019, 2, 132-138.	4.7	28
13	Water-tolerant lithium metal cycling in high lithium concentration phosphonium-based ionic liquid electrolytes. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2276-2283.	4.9	27
14	The Reduction of Oxygen on Iron(II) Oxide/Poly(3,4-ethylenedioxythiophene) Composite Thin Film Electrodes. <i>Electrochimica Acta</i> , 2015, 154, 142-148.	5.2	24
15	Editors' Choice Understanding the Superior Cycling Performance of Si Anode in Highly Concentrated Phosphonium-Based Ionic Liquid Electrolyte. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120520.	2.9	23
16	Tuning the Formation and Structure of the Silicon Electrode/Ionic Liquid Electrolyte Interphase in Superconcentrated Ionic Liquids. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 28281-28294.	8.0	21
17	Alcohol vapour detection at the three phase interface using enzyme-conducting polymer composites. <i>Biosensors and Bioelectronics</i> , 2014, 52, 143-146.	10.1	17
18	Understanding of the Electrogenerated Bulk Electrolyte Species in Sodium-Containing Ionic Liquid Electrolytes During the Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2017, 121, 23307-23316.	3.1	17

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19	Cation effect on small phosphonium based ionic liquid electrolytes with high concentrations of lithium salt. <i>Journal of Chemical Physics</i> , 2018, 148, 193813.	3.0	17
20	Improving Cycle Life through Fast Formation Using a Superconcentrated Phosphonium Based Ionic Liquid Electrolyte for Anode-Free and Lithium Metal Batteries. <i>ACS Applied Energy Materials</i> , 2021, 4, 6399-6407.	5.1	16
21	Electrochemical Formation in Super-Concentrated Phosphonium Based Ionic Liquid Electrolyte Using Symmetric Li-Metal Coin Cells. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120526.	2.9	16
22	Understanding the Role of Separator and Electrolyte Compatibility on Lithium Metal Anode Performance Using Ionic Liquid-Based Electrolytes. <i>ACS Applied Energy Materials</i> , 2021, 4, 6310-6323.	5.1	12
23	Compressively Stressed Silicon Nanoclusters as an Antifracture Mechanism for High-Performance Lithium-Ion Battery Anodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 39195-39204.	8.0	11
24	Application of super-concentrated phosphonium based ionic liquid electrolyte for anode-free lithium metal batteries. <i>Sustainable Energy and Fuels</i> , 2021, 5, 4141-4152.	4.9	11
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. <i>Chemical Communications</i> , 2018, 54, 5338-5341.	4.1	10
26	Solid (cyanomethyl)trimethylammonium salts for electrochemically stable electrolytes for lithium metal batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14721-14735.	10.3	9
27	Morphological Evolution and Solid–Electrolyte Interphase Formation on $\text{LiNi}_{0.6}\text{Mn}_{0.2}\text{Co}_{0.2}\text{O}_2$ Cathodes Using Highly Concentrated Ionic Liquid Electrolytes. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 13196-13205.	8.0	9
28	Tuning the morphology of electroactive polythiophene nano-structures. <i>Reactive and Functional Polymers</i> , 2015, 86, 60-66.	4.1	7
29	Artificial SEI Transplantation: A Pathway to Enabling Lithium Metal Cycling in Water-Containing Electrolytes. <i>ACS Applied Energy Materials</i> , 2019, 2, 8912-8918.	5.1	6
30	Effect of vinylene carbonate electrolyte additive and battery cycling protocol on the electrochemical and cyclability performance of silicon thin-film anodes. <i>Journal of Energy Storage</i> , 2022, 46, 103868.	8.1	6
31	Structuring PEDOT Hollow Nanosphere Electrodes for High Specific Energy Li-Metal   Polymer Thin-Film Batteries. <i>ACS Applied Nano Materials</i> , 2020, 3, 3820-3828.	5.0	5
32	Fast Charge and High Stability of Solid–State Graphite Organic Ionic Plastic Crystal Composite Anodes. <i>Batteries and Supercaps</i> , 2022, 5, .	4.7	5
33	Determining the platinum loading and distribution of industrial scale polymer electrolyte membrane fuel cell electrodes using low energy X-ray imaging. <i>Journal of Power Sources</i> , 2014, 270, 208-212.	7.8	4
34	Macrophase-Separated Organic Ionic Plastic Crystals/PAMPS-Based Ionomer Electrolyte: A New Design Perspective for Flexible and Highly Conductive Solid-State Electrolytes. <i>ACS Omega</i> , 2020, 5, 2931-2938.	3.5	4
35	Highly stable lithium anodes from recycled hemp textile. <i>Chemical Communications</i> , 2022, 58, 1946-1949.	4.1	4
36	Performance of the High Temperature PEM Membrane Electrode Assembly. <i>ECS Transactions</i> , 2014, 64, 973-982.	0.5	3

#	ARTICLE	IF	CITATIONS
37	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
38	Novel polymerisation of conducting thienothiophenes via vapour phase polymerisation: a comparative study. RSC Advances, 2014, 4, 57754-57758.	3.6	2
39	Cover Picture: Fast Charge and High Stability of Solid-State Graphite Organic Ionic Plastic Crystal Composite Anodes (Batteries & Supercaps 7/2022). Batteries and Supercaps, 2022, 5, .	4.7	1