Ruben-Simon KÃ¼hnel

List of Publications by Year
in descending order

41 papers	2,208 citations	257450 24 h-index	454955 30 g-index
43 all docs	43 docs citations	43 times ranked	2720 citing authors

#	Article	IF	Citations
1	Water/Ionic Liquid/Succinonitrile Hybrid Electrolytes for Aqueous Batteries. Advanced Functional Materials, 2022, 32, .	14.9	11
2	The Hydrotropic Effect of Ionic Liquids in Waterâ€inâ€Salt Electrolytes**. Angewandte Chemie, 2021, 133, 14219-14227.	2.0	1
3	The Hydrotropic Effect of Ionic Liquids in Waterâ€inâ€Salt Electrolytes**. Angewandte Chemie - International Edition, 2021, 60, 14100-14108.	13.8	45
4	Anion Selection Criteria for Waterâ€inâ€Salt Electrolytes. Advanced Energy Materials, 2021, 11, 2002913.	19.5	47
5	The Hydrotropic Effect of Ionic Liquids in Water-in-Salt Electrolytes. ECS Meeting Abstracts, 2021, MA2021-02, 287-287.	0.0	0
6	Impact of Anion Asymmetry on Local Structure and Supercooling Behavior of Water-in-Salt Electrolytes. Journal of Physical Chemistry Letters, 2020, 11, 4720-4725.	4.6	20
7	Perspectiveâ€"Electrochemical Stability of Water-in-Salt Electrolytes. Journal of the Electrochemical Society, 2020, 167, 070544.	2.9	68
8	Unraveling the Mechanism of Enhanced Lithium Salt Solubility in Water-in-Salt Electrolytes Containing Ionic Liquids. ECS Meeting Abstracts, 2020, MA2020-02, 682-682.	0.0	0
9	Towards Stable Water-in-Salt Electrolytes for Sodium-Ion Batteries. ECS Meeting Abstracts, 2020, MA2020-02, 3806-3806.	0.0	0
10	Stability of aqueous electrolytes based on LiFSI and NaFSI. Electrochimica Acta, 2019, 321, 134644.	5.2	46
11	Electrochemical Oxidative Stability of Hydroborate-Based Solid-State Electrolytes. ACS Applied Energy Materials, 2019, 2, 6924-6930.	5.1	68
12	Water-in-salt electrolytes for aqueous lithium-ion batteries with liquidus temperatures below â^'10 Â°C. Chemical Communications, 2019, 55, 12032-12035.	4.1	57
13	Suppressing Crystallization of Water-in-Salt Electrolytes by Asymmetric Anions Enables Low-Temperature Operation of High-Voltage Aqueous Batteries. , 2019, 1, 44-51.		99
14	A Water-in-Salt Electrolyte for High-Voltage Aqueous Sodium-Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
15	Towards High-Voltage Sodium-Ion Batteries Based on Aqueous Electrolytes. ECS Meeting Abstracts, 2019, , .	0.0	0
16	A Stable 3 V All-Solid-State Battery Based on a Closo-Borate Electrolyte. ECS Meeting Abstracts, 2019, , .	0.0	0
17	2 V Class Aqueous Sodium-Ion Batteries with Low Temperature Cycling Capabilities. ECS Meeting Abstracts, 2019, , .	0.0	0
18	A Stable 3 V All-Solid-State Sodiumâ€"Ion Battery Based on a Closo-Borate Electrolyte. ECS Meeting Abstracts, 2018, , .	0.0	0

#	Article	IF	Citations
19	A High-Voltage Aqueous Electrolyte for Sodium-Ion Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0
20	A High-Voltage Aqueous Electrolyte for Sodium-Ion Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0
21	High-Voltage Aqueous Supercapacitors Based on Natfsi. ECS Meeting Abstracts, 2018, , .	0.0	0
22	A Lithium Amideâ€Borohydride Solidâ€State Electrolyte with Lithiumâ€Ion Conductivities Comparable to Liquid Electrolytes. Advanced Energy Materials, 2017, 7, 1700294.	19.5	95
23	A highly stable sodium solid-state electrolyte based on a dodeca/deca-borate equimolar mixture. Chemical Communications, 2017, 53, 4195-4198.	4.1	137
24	High-voltage aqueous supercapacitors based on NaTFSI. Sustainable Energy and Fuels, 2017, 1, 2155-2161.	4.9	76
25	A High-Voltage Aqueous Electrolyte for Sodium-Ion Batteries. ACS Energy Letters, 2017, 2, 2005-2006.	17.4	191
26	Reorientational Hydrogen Dynamics in Complex Hydrides with Enhanced Li+ Conduction. Journal of Physical Chemistry C, 2017, 121, 17693-17702.	3.1	11
27	A stable 3 V all-solid-state sodiumâ€“ion battery based on a closo-borate electrolyte. Energy and Environmental Science, 2017, 10, 2609-2615.	30.8	120
28	â€œWater-in-saltâ€•electrolytes enable the use of cost-effective aluminum current collectors for aqueous high-voltage batteries. Chemical Communications, 2016, 52, 10435-10438.	4.1	109
29	Going nano with protic ionic liquidsâ€”the synthesis of carbon coated Li 3 V 2 (PO 4) 3 nanoparticles encapsulated in a carbon matrix for high power lithium-ion batteries. Nano Energy, 2015, 12, 207-214.	16.0	69
30	â€œDouble-Saltâ€•Electrolytes for High Voltage Electrochemical Double-Layer Capacitors. Journal of Solution Chemistry, 2015, 44, 528-537.	1.2	10
31	Comparison of the anodic behavior of aluminum current collectors in imide-based ionic liquids and consequences on the stability of high voltage supercapacitors. Journal of Power Sources, 2014, 249, 163-171.	7.8	73
32	Revisiting Li₃V₂(PO₄)₃as an anode â€“ an outstanding negative electrode for high power energy storage devices. Journal of Materials Chemistry A, 2014, 2, 17906-17913.	10.3	29
33	The beneficial effect of protic ionic liquids on the lithium environment in electrolytes for battery applications. Journal of Materials Chemistry A, 2014, 2, 8258-8265.	10.3	79
34	The Influence of Anionâ€“Cation Combinations on the Physicochemical Properties of Advanced Electrolytes for Supercapacitors and the Capacitance of Activated Carbons. ChemElectroChem, 2014, 1, 1301-1311.	3.4	43
35	Lithium Ion Transport and Solvation in N-Butyl-N-methylpyrrolidinium Bis(trifluoromethanesulfonyl)imideâ€“Propylene Carbonate Mixtures. Journal of Physical Chemistry C, 2014, 118, 5742-5748.	3.1	66
36	Anodic stability of aluminum current collectors in an ionic liquid based on the (fluorosulfonyl)(trifluoromethanesulfonyl)imide anion and its implication on high voltage supercapacitors. Electrochemistry Communications, 2014, 38, 117-119.	4.7	36

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37	Evaluation of the wetting time of porous electrodes in electrolytic solutions containing ionic liquid. Journal of Applied Electrochemistry, 2013, 43, 697-704.	2.9	37
38	The influence of the electrochemical and thermal stability of mixtures of ionic liquid and organic carbonate on the performance of high power lithium-ion batteries. Electrochimica Acta, 2013, 90, 641-648.	5.2	59
39	Suppression of aluminum current collector corrosion in ionic liquid containing electrolytes. Journal of Power Sources, 2012, 214, 178-184.	7.8	169
40	Composite LiFePO4/AC high rate performance electrodes for Li-ion capacitors. Journal of Power Sources, 2011, 196, 4136-4142.	7.8	81
41	Mixtures of ionic liquid and organic carbonate as electrolyte with improved safety and performance for rechargeable lithium batteries. Electrochimica Acta, 2011, 56, 4092-4099.	5.2	252