Peter Bieker

List of Publications by Year
in descending order

50	3,794	26	52
papers	citations	h-index	g-index
		218592	175177

55	55	55	4146
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lithium Powder Synthesis and Preparation of Powderâ€Based Composite Electrodes for Application in Lithium Metal Batteries. Energy Technology, 2022, 10, 2100871.	1.8	2
2	Negative sulfur-based electrodes and their application in battery cells: Dual-ion batteries as an example. Journal of Solid State Electrochemistry, 2022, 26, 2077-2088.	1.2	1
3	Single Component Protection Layers for Lithium Electrodes and Their Characterization in Lithium Metal Batteries. ECS Meeting Abstracts, 2022, MA2022-01, 90-90.	0.0	0
4	A rechargeable zinc-air battery based on zinc peroxide chemistry. Science, 2021, 371, 46-51.	6.0	551
5	Insights into the Solubility of Poly(vinylphenothiazine) in Carbonate-Based Battery Electrolytes. ACS Applied Materials & Interfaces, 2021, 13, 12442-12453.	4.0	23
6	Dibenzo[<i>a</i>,<i>e</i>]Cyclooctatetraeneâ€Functionalized Polymers as Potential Battery Electrode Materials. Macromolecular Rapid Communications, 2021, 42, e2000725.	2.0	9
7	Galvanic Couples in Ionic Liquidâ€Based Electrolyte Systems for Lithium Metal Batteriesâ€"An Overlooked Cause of Galvanic Corrosion?. Advanced Energy Materials, 2021, 11, 2101021.	10.2	22
8	Increasing the Lithium Ion Mobility in Poly(Phosphazene)-Based Solid Polymer Electrolytes through Tailored Cation Doping. Journal of the Electrochemical Society, 2021, 168, 070559.	1.3	4
9	Bridging the Gap between Small Molecular Ï€-Interactions and Their Effect on Phenothiazine-Based Redox Polymers in Organic Batteries. ACS Applied Energy Materials, 2021, 4, 7622-7631.	2.5	9
10	Investigation of Polymer/Ceramic Composite Solid Electrolyte System: The Case of PEO/LGPS Composite Electrolytes. ACS Sustainable Chemistry and Engineering, 2021, 9, 11314-11322.	3.2	32
11	Opportunities and Limitations of Ionic Liquidâ€•and Organic Carbonate Solventâ€Based Electrolytes for Mgâ€Ionâ€Based Dualâ€Ion Batteries. ChemSusChem, 2021, 14, 4480-4498.	3.6	22
12	Tailored 3D-Microstructured Electrode Substrates for Increased Performance in Zero-Excess Lithium Metal Batteries. ECS Meeting Abstracts, 2021, MA2021-02, 94-94.	0.0	0
13	Phenothiazineâ€Functionalized Poly(norbornene)s as Highâ€Rate Cathode Materials for Organic Batteries. ChemSusChem, 2020, 13, 2232-2238.	3.6	43
14	Poly(vinylphenoxazine) as Fast-Charging Cathode Material for Organic Batteries. ACS Sustainable Chemistry and Engineering, 2020, 8, 238-247.	3.2	56
15	Performance and behavior of LLZO-based composite polymer electrolyte for lithium metal electrode with high capacity utilization. Nano Energy, 2020, 77, 105196.	8.2	32
16	Solid Electrolyte Interphase Evolution on Lithium Metal Electrodes Followed by Scanning Electrochemical Microscopy Under Realistic Battery Cycling Current Densities. ChemElectroChem, 2020, 7, 3544-3544.	1.7	1
17	Sputter coating of lithium metal electrodes with lithiophilic metals for homogeneous and reversible lithium electrodeposition and electrodissolution. Materials Today, 2020, 39, 137-145.	8.3	32
18	Solid Electrolyte Interphase Evolution on Lithium Metal Electrodes Followed by Scanning Electrochemical Microscopy Under Realistic Battery Cycling Current Densities. ChemElectroChem, 2020, 7, 3590-3596.	1.7	17

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19	Wetting Phenomena and their Effect on the Electrochemical Performance of Surfaceâ€Tailored Lithium Metal Electrodes in Contact with Crossâ€linked Polymeric Electrolytes. Angewandte Chemie - International Edition, 2020, 59, 17145-17153.	7.2	21
20	BenetzungsvorgÃnge und ihr Einfluss auf die elektrochemischen Eigenschaften von oberflÃchenangepassten Lithiumâ€Metallâ€Elektroden in Kontakt mit quervernetzten Polymerâ€Elektrolyten. Angewandte Chemie, 2020, 132, 17293-17302.	1.6	6
21	Galvanic Corrosion of Lithiumâ€Powderâ€Based Electrodes. Advanced Energy Materials, 2020, 10, 2000017.	10.2	62
22	Solidâ€State Lithiumâ€“Sulfur Battery Enabled by Thioâ€LiSICON/Polymer Composite Electrolyte and Sulfurized Polyacrylonitrile Cathode. Advanced Functional Materials, 2020, 30, 1910123.	7.8	77
23	Approaching Electrochemical Limits of Mg _x Cl _y ^{z+} Complex-Based Electrolytes for Mg Batteries by Tailoring the Solution Structure. Journal of the Electrochemical Society, 2020, 167, 160505.	1.3	9
24	High Capacity Utilization of Li Metal Anodes by Application of Celgard Separator-Reinforced Ternary Polymer Electrolyte. Journal of the Electrochemical Society, 2019, 166, A2142-A2150.	1.3	26
25	The Power of Stoichiometry: Conditioning and Speciation of MgCl₂/AlCl₃ in Tetraethylene Glycol Dimethyl Ether-Based Electrolytes. ACS Applied Materials & Interfaces, 2019, 11, 24057-24066.	4.0	34
26	Improved Interfaces of Mechanically Modified Lithium Electrodes with Solid Polymer Electrolytes. Advanced Materials Interfaces, 2019, 6, 1900518.	1.9	14
27	Lithium-Powder Based Electrodes Modified with ZnI₂ for Enhanced Electrochemical Performance of Lithium-Metal Batteries. Journal of the Electrochemical Society, 2019, 166, A1400-A1407.	1.3	14
28	Influence of Water Content on the Surface Morphology of Zinc Deposited from EMImOTf/Water Mixtures. Journal of the Electrochemical Society, 2019, 166, A909-A914.	1.3	18
29	Engineering Rice Husk into a High-Performance Electrode Material through an Ecofriendly Process and Assessing Its Application for Lithium-Ion Sulfur Batteries. ACS Sustainable Chemistry and Engineering, 2019, 7, 7851-7861.	3.2	34
30	<i>In situ</i>⁷Li-NMR analysis of lithium metal surface deposits with varying electrolyte compositions and concentrations. Physical Chemistry Chemical Physics, 2019, 21, 26084-26094.	1.3	41
31	Revealing Hidden Facts of Li Anode in Cycled Lithiumâ€“Oxygen Batteries through X-ray and Neutron Tomography. ACS Energy Letters, 2019, 4, 306-316.	8.8	61
32	A Facile Preparation of S 8 /C Composite Cathode for Lithiumâ€Sulfur Cells: Influence of Intrinsic and Extrinsic Cathode Properties on the Electrochemical Performance. Energy Technology, 2019, 7, 1800789.	1.8	7
33	Unlocking Full Discharge Capacities of Poly(vinylphenothiazine) as Battery Cathode Material by Decreasing Polymer Mobility Through Crossâ€Linking. Advanced Energy Materials, 2018, 8, 1802151.	10.2	78
34	Cation-Dependent Electrochemistry of Polysulfides in Lithium and Magnesium Electrolyte Solutions. Journal of Physical Chemistry C, 2018, 122, 21770-21783.	1.5	49
35	Mechanism of Charge/Discharge of Poly(vinylphenothiazine)-Based Liâ€“Organic Batteries. Chemistry of Materials, 2018, 30, 6307-6317.	3.2	57
36	Synthesis of Highâ€Purity Imidazolium Tetrafluoroborates and Bis(oxalato)borates. Chemistry - A European Journal, 2017, 23, 2261-2264.	1.7	5

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37	Influence of cations in lithium and magnesium polysulphide solutions: dependence of the solvent chemistry. Physical Chemistry Chemical Physics, 2017, 19, 11152-11162.	1.3	85
38	Decomposition of Imidazoliumâ€Based Ionic Liquids in Contact with Lithium Metal. ChemSusChem, 2017, 10, 876-883.	3.6	24
39	Modified Imidazoliumâ€Based Ionic Liquids With Improved Chemical Stability Against Lithium Metal. ChemistrySelect, 2017, 2, 6052-6056.	0.7	12
40	Ultra-high cycling stability of poly(vinylphenothiazine) as a battery cathode material resulting from Ï€â€“Ï€ interactions. Energy and Environmental Science, 2017, 10, 2334-2341.	15.6	194
41	Counterintuitive trends of the wetting behavior of ionic liquid-based electrolytes on modified lithium electrodes. Physical Chemistry Chemical Physics, 2017, 19, 19178-19187.	1.3	12
42	Lithiumâ€Metal Foil Surface Modification: An Effective Method to Improve the Cycling Performance of Lithiumâ€Metal Batteries. Advanced Materials Interfaces, 2017, 4, 1700166.	1.9	142
43	Chemical Stability Investigations of Polyisobutylene as New Binder for Application in Lithium Air-Batteries. Electrochimica Acta, 2015, 155, 110-115.	2.6	18
44	Fluoroethylene Carbonate as Electrolyte Additive in Tetraethylene Glycol Dimethyl Ether Based Electrolytes for Application in Lithium Ion and Lithium Metal Batteries. Journal of the Electrochemical Society, 2015, 162, A1094-A1101.	1.3	211
45	Electrochemical in situ investigations of SEI and dendrite formation on the lithium metal anode. Physical Chemistry Chemical Physics, 2015, 17, 8670-8679.	1.3	621
46	Mechanical Surface Modification of Lithium Metal: Towards Improved Li Metal Anode Performance by Directed Li Plating. Advanced Functional Materials, 2015, 25, 834-841.	7.8	343
47	Coated Lithium Powder (CLiP) Electrodes for Lithiumâ€Metal Batteries. Advanced Energy Materials, 2014, 4, 1300815.	10.2	167
48	Using Polyisobutylene as a Non-Fluorinated Binder for Coated Lithium Powder (CLiP) Electrodes. Electrochimica Acta, 2014, 138, 288-293.	2.6	27
49	Reversible Intercalation of Bis(trifluoromethanesulfonyl)imide Anions from an Ionic Liquid Electrolyte into Graphite for High Performance Dual-Ion Cells. Journal of the Electrochemical Society, 2012, 159, A1755-A1765.	1.3	274
50	Dual-ion Cells Based on Anion Intercalation into Graphite from Ionic Liquid-Based Electrolytes. Zeitschrift Fur Physikalische Chemie, 2012, 226, 391-407.	1.4	108