Piotr Jankowski

List of Publications by Citations

43 papers	675 citations	14 h-index	24 g-index
46 ext. papers	921 ext. citations	8.5 avg, IF	4.43 L-index

#	Paper	IF	Citations
43	Boosting Rechargeable Batteries R&D by Multiscale Modeling: Myth or Reality?. *Chemical Reviews*, **2019**, 119, 4569-4627	68.1	121
42	Diglyme Based Electrolytes for Sodium-Ion Batteries. *ACS Applied Energy Materials*, **2018**, 1, 2671-2680	6.1	61
41	Design of a Multifunctional Interlayer for NASCION-Based Solid-State Li Metal Batteries. *Advanced Functional Materials*, **2020**, 30, 2001444	15.6	57
40	Multi-Electron Reactions Enabled by Anion-Based Redox Chemistry for High-Energy Multivalent Rechargeable Batteries. *Angewandte Chemie - International Edition*, **2020**, 59, 11483-11490	16.4	47
39	Highly Fluorescent Red-Light Emitting Bis(boranils) Based on Naphthalene Backbone. *Journal of Organic Chemistry*, **2017**, 82, 8234-8241	4.2	43
38	SEI-forming electrolyte additives for lithium-ion batteries: development and benchmarking of computational approaches. *Journal of Molecular Modeling*, **2017**, 23, 6	2	27
37	Fluorine-free electrolytes for all-solid sodium-ion batteries based on percyano-substituted organic salts. *Scientific Reports*, **2017**, 7, 40036	4.9	22
36	Influence of the diol structure on the Lewis acidity of phenylboronates. *Journal of Physical Organic Chemistry*, **2013**, 26, 415-419	2.1	21
35	Impact of Sulfur-Containing Additives on Lithium-Ion Battery Performance: From Computational Predictions to Full-Cell Assessments. *ACS Applied Energy Materials*, **2018**, 1, 2582-2591	6.1	21
34	Towards a better understanding of vinylene carbonate derived SEI-layers by synthesis of reduction compounds. *Journal of Power Sources*, **2019**, 427, 77-84	8.9	20
33	Structural Studies of Lithium 4,5-Dicyanoimidazolate–Glyme Solvates. 1. From Isolated Free Ions to Conductive Aggregated Systems. *Journal of Physical Chemistry C*, **2015**, 119, 9108-9116	3.8	20
32	The effect of locking π-conjugation in organoboron moieties in the structures of luminescent tetracoordinate boron complexes. *Dalton Transactions*, **2019**, 48, 8642-8663	4.3	17
31	TFSI and TDI Anions: Probes for Solvate Ionic Liquid and Disproportionation-Based Lithium Battery Electrolytes. *Journal of Physical Chemistry Letters*, **2017**, 8, 3678-3682	6.4	16
30	Functional ionic liquids: Cationic SEI-formers for lithium batteries. *Energy Storage Materials*, **2019**, 20, 108-117	19.4	14
29	Structural Studies of Lithium 4,5-Dicyanoimidazolate–Glyme Solvates. 2. Ionic Aggregation Modes in Solution and PEO Matrix. *Journal of Physical Chemistry C*, **2015**, 119, 10247-10254	3.8	14
28	New boron based salts for lithium-ion batteries using conjugated ligands. *Physical Chemistry Chemical Physics*, **2016**, 18, 16274-80	3.6	14
27	Cationic and Betaine-Type Boronated Acridinium Dyes: Synthesis, Characterization, and Photocatalytic Activity. *ACS Omega*, **2019**, 4, 2482-2492	3.9	11

26	Comparative investigation of solid electrolyte interphases created by the electrolyte additives vinyl ethylene carbonate and dicyano ketene vinyl ethylene acetal. *Journal of Power Sources*, **2017**, 345, 212-220	8.9	10
25	Structure of Magnesium Chloride Complexes in Ethereal Systems: Computational Comparison of THF and Glymes as Solvents for Magnesium Battery Electrolytes. *Batteries and Supercaps*, **2020**, 3, 1350-1359	5.6	10
24	Modeling of Ion Agglomeration in Magnesium Electrolytes and its Impacts on Battery Performance. *ChemSusChem*, **2020**, 13, 3599-3604	8.3	9
23	Charge storage mechanism of □MnO2 in protic and aprotic ionic liquid electrolytes. *Journal of Power Sources*, **2020**, 460, 228111	8.9	8
22	Facile reduction of pseudo-carbonates: Promoting solid electrolyte interphases with dicyanoketene alkylene acetals in lithium-ion batteries. *Journal of Power Sources*, **2016**, 303, 1-9	8.9	8
21	Dual Role of Mo S in Polysulfide Conversion and Shuttle for Mg-S Batteries.. *Advanced Science*, **2022**, e2104605	13.6	7
20	Development of Magnesium Borate Electrolytes: Explaining the Success of Mg[B(hfip)4]2 Salt. *Energy Storage Materials*, **2021**, 45, 1133-1133	19.4	7
19	Critical Role of Functional Groups Containing N, S, and O on Graphene Surface for Stable and Fast Charging Li-S Batteries. *Small*, **2021**, 17, e2007242	11	7
18	Ab initio Molecular Dynamics Investigations of the Speciation and Reactivity of Deep Eutectic Electrolytes in Aluminum Batteries. *ChemSusChem*, **2021**, 14, 2034-2041	8.3	6
17	Understanding of Lithium 4,5-Dicyanoimidazolate□Poly(ethylene oxide) System: Influence of the Architecture of the Solid Phase on the Conductivity. *Journal of Physical Chemistry C*, **2016**, 120, 23358-23367	3.8	6
16	Synthesis, characterization and photoluminescence of 8-oxyquinolinato organoboron complexes derived from pyrazole. *Tetrahedron Letters*, **2017**, 58, 1185-1189	2	5
15	Amine- and Amide-Functionalized Mesoporous Carbons: A Strategy for Improving Sulfur/Host Interactions in Li□S Batteries. *Batteries and Supercaps*, **2020**, 3, 757-765	5.6	5
14	Multi-Electron Reactions Enabled by Anion-Based Redox Chemistry for High-Energy Multivalent Rechargeable Batteries. *Angewandte Chemie*, **2020**, 132, 11580-11587	3.6	5
13	Coordination Abilities of 4,5-Dicyano-2-(trifluoromethyl)imidazolate Anion toward Sodium Cation: Structural and Spectroscopic Studies of Solid and Liquid Glyme-Solvated Electrolyte Systems. *Journal of Physical Chemistry C*, **2017**, 121, 26713-26721	3.8	5
12	Polymers for aluminium secondary batteries: Solubility, ionogel formation and chloroaluminate speciation. *Polymer*, **2021**, 224, 123707	3.9	5
11	Anion amphiprotic ionic liquids as protic electrolyte matrices allowing sodium metal plating. *Chemical Communications*, **2019**, 55, 12523-12526	5.8	5
10	Insight on the conductivity mechanism in sodium 4,5-dicyano-2-trifluoromethyl-imidazolide-poly (ethylene oxide) system. *Electrochimica Acta*, **2018**, 291, 161-167	6.7	4
9	Role of propylene carbonate chirality on physicochemical properties of the corresponding ion conductors. *Electrochimica Acta*, **2015**, 175, 240-246	6.7	3

8	Snapshots of the Hydrolysis of Lithium 4,5-Dicyanoimidazolate–Glyme Solvates. Impact of Water Molecules on Aggregation Processes in Lithium-Ion Battery Electrolytes. *Journal of Physical Chemistry C*, **2018**, 122, 3201-3210	3.8	3
7	Chemically soft solid electrolyte interphase forming additives for lithium-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 22609-22618	13	3
6	Modeling of Electron-Transfer Kinetics in Magnesium Electrolytes: Influence of the Solvent on the Battery Performance. *ChemSusChem*, **2021**, 14, 4820-4835	8.3	3
5	Catching TFSI: A Computational-Experimental Approach to β-Cyclodextrin-Based Host-Guest Systems as electrolytes for Li-Ion Batteries. *ChemSusChem*, **2018**, 11, 1942-1949	8.3	2
4	Influence of Ionic Coordination on the Cathode Reaction Mechanisms of Al/S Batteries. *Journal of Physical Chemistry C*,	3.8	1
3	Designing High-Performant Lithium Battery Electrolytes by Utilizing Two Natures of Li + Coordination: LiTDI/LiTFSI in Tetraglyme. *Batteries and Supercaps*, **2021**, 4, 205-213	5.6	1
2	Prospects for Improved Magnesocene-Based Magnesium Battery Electrolytes. *Batteries and Supercaps*, **2021**, 4, 1335-1343	5.6	0
1	Ab initio Molecular Dynamics Investigations of the Speciation and Reactivity of Deep Eutectic Electrolytes in Aluminum Batteries. *ChemSusChem*, **2021**, 14, 1973	8.3	