Thomas Diemant

List of Publications by Year
in descending order

81 papers	3,602 citations	136950 32 h-index	138484 58 g-index
88 all docs	88 docs citations	88 times ranked	4612 citing authors

#	Article	IF	Citations
1	Investigation of the Anodeâ€Electrolyte Interface in a Magnesium Fullâ€Cell with Fluorinated Alkoxyborateâ€Based Electrolyte. Batteries and Supercaps, 2022, 5, .	4.7	8
2	Molecular and Dissociative Hydrogen Adsorption on Bimetallic PdAg/Pd(111) Surface Alloys: A Combined Experimental and Theoretical Study. Journal of Physical Chemistry C, 2022, 126, 3060-3077.	3.1	4
3	Tungsten Oxytetrachloride as a Positive Electrode for Chlorideâ€Ion Batteries. Energy Technology, 2022, 10, .	3.8	3
4	Resolving the structure of V₃O₇Â·H₂O and Mo-substituted V₃O₇Â·H₂O. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2022, 78, 637-642.	1.1	2
5	CO Oxidation on Planar Au/TiO₂ Model Catalysts under Realistic Conditions: A Combined Kinetic and IR Study. ChemPhysChem, 2021, 22, 542-552.	2.1	2
6	Embedding Heterostructured Î±â€MnS/MnO Nanoparticles in Sâ€Doped Carbonaceous Porous Framework as Highâ€Performance Anode for Lithiumâ€Ion Batteries. ChemElectroChem, 2021, 8, 918-927.	3.4	21
7	Reversible Copper Sulfide Conversion in Nonflammable Trimethyl Phosphate Electrolytes for Safe Sodiumâ€Ion Batteries. Small Structures, 2021, 2, 2100035.	12.0	30
8	Establishing a Stable Anodeâ€"Electrolyte Interface in Mg Batteries by Electrolyte Additive. ACS Applied Materials & Interfaces, 2021, 13, 33123-33132.	8.0	34
9	Unveiling the Intricate Intercalation Mechanism in Manganese Sesquioxide as Positive Electrode in Aqueous Znâ€Metal Battery. Advanced Energy Materials, 2021, 11, 2100962.	19.5	39
10	Unveiling the Intricate Intercalation Mechanism in Manganese Sesquioxide as Positive Electrode in Aqueous Znâ€Metal Battery (Adv. Energy Mater. 35/2021). Advanced Energy Materials, 2021, 11, 2170136.	19.5	0
11	Highly Reversible Sodiation of Tin in Glyme Electrolytes: The Critical Role of the Solid Electrolyte Interphase and Its Formation Mechanism. ACS Applied Materials & Interfaces, 2020, 12, 3697-3708.	8.0	37
12	Synthesis of amorphous and graphitized porous nitrogen-doped carbon spheres as oxygen reduction reaction catalysts. Beilstein Journal of Nanotechnology, 2020, 11, 1-15.	2.8	23
13	Polymeric carbon nitride coupled with a molecular thiomolybdate catalyst: exciton and charge dynamics in light-driven hydrogen evolution. Sustainable Energy and Fuels, 2020, 4, 6085-6095.	4.9	20
14	Calciumâ€"Sulfur Batteries: Rechargeable Calciumâ€"Sulfur Batteries Enabled by an Efficient Borateâ€Based Electrolyte (Small 39/2020). Small, 2020, 16, 2070216.	10.0	5
15	Electrochemical and compositional characterization of solid interphase layers in an interface-modified solid-state Liâ€"sulfur battery. Journal of Materials Chemistry A, 2020, 8, 16451-16462.	10.3	44
16	Model Studies on Solid Electrolyte Interphase Formation on Graphite Electrodes in Ethylene Carbonate and Dimethyl Carbonate II: Graphite Powder Electrodes. ChemElectroChem, 2020, 7, 4794-4809.	3.4	8
17	Reducing Capacity and Voltage Decay of Coâ€Free Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ as Positive Electrode Material for Lithium Batteries Employing an Ionic Liquidâ€Based Electrolyte. Advanced Energy Materials, 2020, 10, 2001830.	19.5	42
18	Impact of Surface Chemistry and Doping Concentrations on Biofunctionalization of GaN/Gaâ€'Inâ€'N Quantum Wells. Sensors, 2020, 20, 4179.	3.8	3

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19	Metalâ€“Organic Framework Derived Fe₇S₈ Nanoparticles Embedded in Heteroatomâ€Doped Carbon with Lithium and Sodium Storage Capability. Small Methods, 2020, 4, 2000637.	8.6	46
20	Investigation on the formation of Mg metal anode/electrolyte interfaces in Mg/S batteries with electrolyte additives. Journal of Materials Chemistry A, 2020, 8, 22998-23010.	10.3	46
21	Lithium Metal Batteries: Reducing Capacity and Voltage Decay of Coâ€Free Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ as Positive Electrode Material for Lithium Batteries Employing an Ionic Liquidâ€Based Electrolyte (Adv. Energy Mater. 34/2020). Advanced Energy Materials, 2020, 10, 2070142.	19.5	0
22	Rechargeable Calciumâ€“Sulfur Batteries Enabled by an Efficient Borateâ€Based Electrolyte. Small, 2020, 16, e2001806.	10.0	24
23	Introducing Highly Redoxâ€Active Atomic Centers into Insertionâ€Type Electrodes for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2020, 10, 2000783.	19.5	30
24	Understanding the Origin of Higher Capacity for Ni-Based Disordered Rock-Salt Cathodes. Chemistry of Materials, 2020, 32, 3447-3461.	6.7	16
25	Lithiumâ€Ion Batteries: Introducing Highly Redoxâ€Active Atomic Centers into Insertionâ€Type Electrodes for Lithiumâ€Ion Batteries (Adv. Energy Mater. 25/2020). Advanced Energy Materials, 2020, 10, 2070112.	19.5	1
26	Solvent-Dictated Sodium Sulfur Redox Reactions: Investigation of Carbonate and Ether Electrolytes. Energies, 2020, 13, 836.	3.1	19
27	Study of the Na Storage Mechanism in Silicon Oxycarbideâ€"Evidence for Reversible Silicon Redox Activity. Small Methods, 2019, 3, 1800177.	8.6	19
28	Model Studies on the Solid Electrolyte Interphase Formation on Graphite Electrodes in Ethylene Carbonate and Dimethyl Carbonate: Highly Oriented Pyrolytic Graphite. ChemElectroChem, 2019, 6, 4985-4997.	3.4	14
29	Revisiting the Electrochemical Lithiation Mechanism of Aluminum and the Role of Liâ€rich Phases (Li 1+ x) Tj ETQq1 1 0.784314 rgBT	6.8	2
30	Superior Lithium Storage Capacity of Î±â€MnS Nanoparticles Embedded in Sâ€Doped Carbonaceous Mesoporous Frameworks. Advanced Energy Materials, 2019, 9, 1902077.	19.5	108
31	Oxygen Activity in Li-Rich Disordered Rock-Salt Oxide and the Influence of LiNbO₃ Surface Modification on the Electrochemical Performance. Chemistry of Materials, 2019, 31, 4330-4340.	6.7	33
32	Revisiting the Electrochemical Lithiation Mechanism of Aluminum and the Role of Liâ€rich Phases (Li_{1+<i>x</i>}Al) on Capacity Fading. ChemSusChem, 2019, 12, 2609-2619.	6.8	39
33	Insights into the electrochemical processes of rechargeable magnesiumâ€“sulfur batteries with a new cathode design. Journal of Materials Chemistry A, 2019, 7, 25490-25502.	10.3	53
34	Performance Improvement of Vâ€“Feâ€“Crâ€“Ti Solid State Hydrogen Storage Materials in Impure Hydrogen Gas. ACS Applied Materials & Interfaces, 2018, 10, 1662-1671.	8.0	14
35	Complementary Strategies Toward the Aqueous Processing of Highâ€Voltage LiNi_{0.5}Mn_{1.5}O₄ Lithiumâ€Ion Cathodes. ChemSusChem, 2018, 11, 562-573.	6.8	70
36	Fast kinetics of multivalent intercalation chemistry enabled by solvated magnesium-ions into self-established metallic layered materials. Nature Communications, 2018, 9, 5115.	12.8	114

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37	MnPO4 -Coated Li-NCM: MnPO4 -Coated Li(Ni0.4 Co0.2 Mn0.4)O2 for Lithium(-Ion) Batteries with Outstanding Cycling Stability and Enhanced Lithiation Kinetics (Adv. Energy Mater. 27/2018). Advanced Energy Materials, 2018, 8, 1870123.	19.5	9
38	Conversion/alloying lithium-ion anodes â€“ enhancing the energy density by transition metal doping. Sustainable Energy and Fuels, 2018, 2, 2601-2608.	4.9	41
39	Insight into Sulfur Confined in Ultramicroporous Carbon. ACS Omega, 2018, 3, 11290-11299.	3.5	42
40	Electrocatalytic Oxygen Reduction and Oxygen Evolution in Mgâ€Free and Mgâ€“Containing Ionic Liquid 1â€Butylâ€1â€Methylpyrrolidinium Bis (Trifluoromethanesulfonyl) Imide. ChemElectroChem, 2018, 5, 2600-2611.	3.4	10
41	Dendrite Growth in Mg Metal Cells Containing Mg(TFSI)₂/Glyme Electrolytes. Journal of the Electrochemical Society, 2018, 165, A1983-A1990.	2.9	124
42	MnPO₄â€Coated Li(Ni_{0.4}Co_{0.2}Mn_{0.4})O₂ for Lithium(â€Ion) Batteries with Outstanding Cycling Stability and Enhanced Lithiation Kinetics. Advanced Energy Materials, 2018, 8, 1801573.	19.5	87
43	Toward Highly Reversible Magnesiumâ€“Sulfur Batteries with Efficient and Practical Mg[B(hfip)₄]₂ Electrolyte. ACS Energy Letters, 2018, 3, 2005-2013.	17.4	234
44	Electrochemical Formation and Characterization of Surface Blocking Layers on Gold and Platinum by Oxygen Reduction in Mg(ClO₄)₂in DMSO. Journal of the Electrochemical Society, 2018, 165, A2037-A2046.	2.9	10
45	Selective Binding of Inhibitorâ€Assisted Surfaceâ€Imprinted Core/Shell Microbeads in Protein Mixtures. ChemistrySelect, 2018, 3, 4277-4282.	1.5	7
46	Interlayerâ€Expanded Vanadium Oxychloride as an Electrode Material for Magnesiumâ€Based Batteries. ChemElectroChem, 2017, 4, 738-745.	3.4	22
47	Excellent Cycling Stability and Superior Rate Capability of Na₃V₂(PO₄)₃ Cathodes Enabled by Nitrogenâ€Doped Carbon Interpenetration for Sodiumâ€Ion Batteries. ChemElectroChem, 2017, 4, 1256-1263.	3.4	32
48	Pectin, Hemicellulose, or Lignin? Impact of the Biowaste Source on the Performance of Hard Carbons for Sodiumâ€Ion Batteries. ChemSusChem, 2017, 10, 2668-2676.	6.8	125
49	Insights into the reversibility of aluminum graphite batteries. Journal of Materials Chemistry A, 2017, 5, 9682-9690.	10.3	112
50	CuF₂ as Reversible Cathode for Fluoride Ion Batteries. Advanced Functional Materials, 2017, 27, 1701051.	14.9	112
51	Study of all solid-state rechargeable fluoride ion batteries based on thin-film electrolyte. Journal of Solid State Electrochemistry, 2017, 21, 1243-1251.	2.5	31
52	A Porphyrin Complex as a Selfâ€Conditioned Electrode Material for Highâ€Performance Energy Storage. Angewandte Chemie, 2017, 129, 10477-10482.	2.0	31
53	A Porphyrin Complex as a Selfâ€Conditioned Electrode Material for Highâ€Performance Energy Storage. Angewandte Chemie - International Edition, 2017, 56, 10341-10346.	13.8	94
54	Silanization of Sapphire Surfaces for Optical Sensing Applications. ACS Sensors, 2017, 2, 522-530.	7.8	2

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55	Insights into solid electrolyte interphase formation on alternative anode materials in lithium-ion batteries. Journal of Applied Electrochemistry, 2017, 47, 249-259.	2.9	17
56	Lithium-Magnesium Hybrid Battery with Vanadium Oxychloride as Electrode Material. ChemistrySelect, 2017, 2, 7558-7564.	1.5	6
57	Ultrafast Ionic Liquid-Assisted Microwave Synthesis of SnO Microflowers and Their Superior Sodium-Ion Storage Performance. ACS Applied Materials & Interfaces, 2017, 9, 26797-26804.	8.0	29
58	ZnO/ZnFe2O4/N-doped C micro-polyhedrons with hierarchical hollow structure as high-performance anodes for lithium-ion batteries. Nano Energy, 2017, 42, 341-352.	16.0	103
59	Inâ€…Situ Coating of Li[Ni_{0.33}Mn_{0.33}Co_{0.33}]O₂ Particles to Enable Aqueous Electrode Processing. ChemSusChem, 2016, 9, 1112-1117.	6.8	74
60	VOCl as a Cathode for Rechargeable Chloride Ion Batteries. Angewandte Chemie, 2016, 128, 4357-4362.	2.0	26
61	Thermochemical Energy Storage through De/Hydrogenation of Organic Liquids: Reactions of Organic Liquids on Metal Hydrides. ACS Applied Materials & Interfaces, 2016, 8, 13993-14003.	8.0	11
62	Battery Technology: Nitrogen Rich Hierarchically Organized Porous Carbon/Sulfur Composite Cathode Electrode for High Performance Li/S Battery: A Mechanistic Investigation by Operando Spectroscopic Studies (Adv. Mater. Interfaces 19/2016). Advanced Materials Interfaces, 2016, 3, .	3.7	0
63	Nitrogen Rich Hierarchically Organized Porous Carbon/Sulfur Composite Cathode Electrode for High Performance Li/S Battery: A Mechanistic Investigation by Operando Spectroscopic Studies. Advanced Materials Interfaces, 2016, 3, 1600372.	3.7	36
64	A Lithiumâ€Ion Battery with Enhanced Safety Prepared using an Environmentally Friendly Process. ChemSusChem, 2016, 9, 1290-1298.	6.8	15
65	In-Depth Interfacial Chemistry and Reactivity Focused Investigation of Lithiumâ€“Imide- and Lithiumâ€“Imidazole-Based Electrolytes. ACS Applied Materials & Interfaces, 2016, 8, 16087-16100.	8.0	159
66	VOCl as a Cathode for Rechargeable Chloride Ion Batteries. Angewandte Chemie - International Edition, 2016, 55, 4285-4290.	13.8	81
67	Performance study of magnesiumâ€“sulfur battery using a graphene based sulfur composite cathode electrode and a non-nucleophilic Mg electrolyte. Nanoscale, 2016, 8, 3296-3306.	5.6	247
68	Ag on Pt(111): Changes in Electronic and CO Adsorption Properties upon PtAg/Pt(111) Monolayer Surface Alloy Formation. ChemPhysChem, 2015, 16, 2907-2907.	2.1	1
69	Ag on Pt(111): Changes in Electronic and CO Adsorption Properties upon PtAg/Pt(111) Monolayer Surface Alloy Formation. ChemPhysChem, 2015, 16, 2943-2952.	2.1	12
70	Batteries: Performance Improvement of Magnesium Sulfur Batteries with Modified Nonâ€Nucleophilic Electrolytes (Adv. Energy Mater. 3/2015). Advanced Energy Materials, 2015, 5, .	19.5	2
71	Iron encapsulated nitrogen and sulfur co-doped few layer graphene as a non-precious ORR catalyst for PEMFC application. RSC Advances, 2015, 5, 66494-66501.	3.6	34
72	Single step transformation of sulphur to Li2S2/Li2S in Li-S batteries. Scientific Reports, 2015, 5, 12146.	3.3	154

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73	Performance Improvement of Magnesium Sulfur Batteries with Modified Nonâ€Nucleophilic Electrolytes. Advanced Energy Materials, 2015, 5, 1401155.	19.5	308
74	Precise Control of Polydopamine Film Formation by Electropolymerization. Macromolecular Symposia, 2014, 346, 73-81.	0.7	55
75	Coadsorption of Hydrogen and CO on Hydrogen Preâ€Covered PtRu/Ru(0001) Surface Alloys. ChemPhysChem, 2010, 11, 1482-1490.	2.1	14
76	Planar Au/TiO₂ Model Catalysts: Fabrication, Characterization and Catalytic Activity. ChemPhysChem, 2010, 11, 1430-1437.	2.1	16
77	From Adlayer Islands to Surface Alloy: Structural and Chemical Changes on Bimetallic PtRu/Ru(0001) Surfaces. ChemPhysChem, 2010, 11, 3123-3132.	2.1	29
78	Coadsorption of hydrogen and CO on well-defined Pt35Ru65/Ru(0001) surface alloysâ€"site specificity vs. adsorbateâ€"adsorbate interactions. Physical Chemistry Chemical Physics, 2010, 12, 9801.	2.8	15
79	Stability and chemisorption properties of ultrathin TiOx/Pt(111) films and Au/TiOx/Pt(111) model catalysts in reactive atmospheres. Physical Chemistry Chemical Physics, 2010, 12, 6864.	2.8	7
80	Interaction of CO with planar Au/TiO2 model catalysts at elevated pressures. Topics in Catalysis, 2007, 44, 83-93.	2.8	39
81	High-pressure study on the adsorption and oxidation of CO on gold/titania model catalysts. Surface Science, 2007, 601, 3801-3804.	1.9	12