Alberto Varzi

List of Publications by Year
in descending order

71 papers	6,506 citations	109321 35 h-index	88630 70 g-index
74 all docs	74 docs citations	74 times ranked	10061 citing authors

#	Article	IF	Citations
1	The role of graphene for electrochemical energy storage. Nature Materials, 2015, 14, 271-279.	27.5	2,237
2	Alternative binders for sustainable electrochemical energy storage â€“ the transition to aqueous electrode processing and bio-derived polymers. Energy and Environmental Science, 2018, 11, 3096-3127.	30.8	379
3	Challenges and prospects of the role of solid electrolytes in the revitalization of lithium metal batteries. Journal of Materials Chemistry A, 2016, 4, 17251-17259.	10.3	293
4	ZnFe₂O₄â€C/LiFePO₄â€CNT: A Novel Highâ€Power Lithiumâ€Ion Battery with Excellent Cycling Performance. Advanced Energy Materials, 2014, 4, 1-9.	19.5	287
5	Cobalt Disulfide Nanoparticles Embedded in Porous Carbonaceous Micro-Polyhedrons Interlinked by Carbon Nanotubes for Superior Lithium and Sodium Storage. ACS Nano, 2018, 12, 7220-7231.	14.6	234
6	Hybrid electrolytes for lithium metal batteries. Journal of Power Sources, 2018, 392, 206-225.	7.8	179
7	Comparative study of imide-based Li salts as electrolyte additives for Li-ion batteries. Journal of Power Sources, 2018, 375, 43-52.	7.8	154
8	A Thin and Uniform Fluoride-Based Artificial Interphase for the Zinc Metal Anode Enabling Reversible Zn/MnO₂ Batteries. ACS Energy Letters, 2021, 6, 3063-3071.	17.4	134
9	Critical Insight into the Relentless Progression Toward Graphene and Grapheneâ€Containing Materials for Lithiumâ€Ion Battery Anodes. Advanced Materials, 2017, 29, 1603421.	21.0	132
10	Calcium vanadate sub-microfibers as highly reversible host cathode material for aqueous zinc-ion batteries. Chemical Communications, 2019, 55, 2265-2268.	4.1	111
11	Singleâ€Ion Conducting Electrolyte Based on Electrospun Nanofibers for Highâ€Performance Lithium Batteries. Advanced Energy Materials, 2019, 9, 1803422.	19.5	109
12	Current status and future perspectives of lithium metal batteries. Journal of Power Sources, 2020, 480, 228803.	7.8	109
13	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
14	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
15	Fluorineâ€Free Waterâ€inâ€Salt Electrolyte for Green and Lowâ€Cost Aqueous Sodiumâ€Ion Batteries. ChemSusChem, 2018, 11, 3704-3707.	6.8	90
16	High Capacity Allâ€Solidâ€State Lithium Batteries Enabled by Pyriteâ€Sulfur Composites. Advanced Energy Materials, 2018, 8, 1801462.	19.5	89
17	High-Power Na-Ion and K-Ion Hybrid Capacitors Exploiting Cointercalation in Graphite Negative Electrodes. ACS Energy Letters, 2019, 4, 2675-2682.	17.4	88
18	Study of multi-walled carbon nanotubes for lithium-ion battery electrodes. Journal of Power Sources, 2011, 196, 3303-3309.	7.8	86

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19	3D Porous Cuâ€“Zn Alloys as Alternative Anode Materials for Liâ€ion Batteries with Superior Low T Performance. Advanced Energy Materials, 2018, 8, 1701706.	19.5	85
20	Modeling nucleation and growth of zinc oxide during discharge of primary zinc-air batteries. Journal of Power Sources, 2017, 360, 136-149.	7.8	80
21	The Emergence of Aqueous Ammoniumâ€ion Batteries. Angewandte Chemie - International Edition, 2022, 61, .	13.8	65
22	High loading CuS-based cathodes for all-solid-state lithium sulfur batteries with enhanced volumetric capacity. Energy Storage Materials, 2020, 27, 61-68.	18.0	64
23	Natural Cellulose: A Green Alternative Binder for High Voltage Electrochemical Double Layer Capacitors Containing Ionic Liquid-Based Electrolytes. Journal of the Electrochemical Society, 2014, 161, A368-A375.	2.9	63
24	Ultra-thick battery electrodes for high gravimetric and volumetric energy density Li-ion batteries. Journal of Power Sources, 2019, 437, 226923.	7.8	57
25	Flexible and high temperature supercapacitor based on laser-induced graphene electrodes and ionic liquid electrolyte, a de-rated voltage analysis. Electrochimica Acta, 2020, 357, 136838.	5.2	54
26	Halide-free water-in-salt electrolytes for stable aqueous sodium-ion batteries. Nano Energy, 2020, 77, 105176.	16.0	46
27	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
28	Gelified acetate-based water-in-salt electrolyte stabilizing hexacyanoferrate cathode for aqueous potassium-ion batteries. Energy Storage Materials, 2020, 30, 196-205.	18.0	46
29	Graphene derived carbon confined sulfur cathodes for lithium-sulfur batteries: Electrochemical impedance studies. Electrochimica Acta, 2016, 214, 129-138.	5.2	43
30	Concentrated Electrolytes Enabling Stable Aqueous Ammoniumâ€ion Batteries. Advanced Materials, 2022, 34, .	21.0	40
31	Revisiting the Electrochemical Lithiation Mechanism of Aluminum and the Role of Liâ€rich Phases (Li_{1+x}Al) on Capacity Fading. ChemSusChem, 2019, 12, 2609-2619.	6.8	39
32	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
33	Artificial Solid Electrolyte Interphases for Lithium Metal Electrodes by Wet Processing: The Role of Metal Salt Concentration and Solvent Choice. ACS Applied Materials & Interfaces, 2020, 12, 32851-32862.	8.0	38
34	Highly porous single-ion conductive composite polymer electrolyte for high performance Li-ion batteries. Journal of Power Sources, 2018, 397, 79-86.	7.8	37
35	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
36	Natural Polymers as Green Binders for Highâ€Loading Supercapacitor Electrodes. ChemSusChem, 2020, 13, 763-770.	6.8	37

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37	Green and low-cost acetate-based electrolytes for the highly reversible zinc anode. Journal of Power Sources, 2021, 485, 229329.	7.8	37
38	Nonfluorinated Ionic Liquid Electrolytes for Lithium Metal Batteries: Ionic Conduction, Electrochemistry, and Interphase Formation. Advanced Energy Materials, 2021, 11, 2003521.	19.5	37
39	The effects of pristine and carboxylated multi-walled carbon nanotubes as conductive additives on the performance of LiNi0.33Co0.33Mn0.33O2 and LiFePO4 positive electrodes. Electrochimica Acta, 2012, 78, 17-26.	5.2	36
40	Performance and kinetics of LiFePO4â€“carbon bi-material electrodes for hybrid devices: A comparative study between activated carbon and multi-walled carbon nanotubes. Journal of Power Sources, 2015, 273, 1016-1022.	7.8	36
41	Supported PtRu on mesoporous carbons for direct methanol fuel cells. Journal of Power Sources, 2008, 185, 615-620.	7.8	34
42	Determining Realistic Electrochemical Stability Windows of Electrolytes for Electrical Doubleâ€Layer Capacitors. Batteries and Supercaps, 2020, 3, 698-707.	4.7	33
43	Reversible Copper Sulfide Conversion in Nonflammable Trimethyl Phosphate Electrolytes for Safe Sodiumâ€ion Batteries. Small Structures, 2021, 2, 2100035.	12.0	30
44	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
45	Exploring SnS nanoparticles interpenetrated with high concentration nitrogen-doped-carbon as anodes for sodium ion batteries. Electrochimica Acta, 2019, 296, 806-813.	5.2	27
46	Enabling high areal capacitance in electrochemical double layer capacitors by means of the environmentally friendly starch binder. Journal of Power Sources, 2015, 300, 216-222.	7.8	26
47	A comprehensive insight into the volumetric response of graphite electrodes upon sodium co-intercalation in ether-based electrolytes. Electrochimica Acta, 2019, 304, 474-486.	5.2	25
48	Probing the characteristics of casein as green binder for non-aqueous electrochemical double layer capacitors' electrodes. Journal of Power Sources, 2016, 326, 672-679.	7.8	24
49	Radical Decomposition of Ether-Based Electrolytes for Li-S Batteries. Journal of the Electrochemical Society, 2017, 164, A1812-A1819.	2.9	23
50	High energy and high voltage integrated photo-electrochemical double layer capacitor. Sustainable Energy and Fuels, 2018, 2, 968-977.	4.9	23
51	Na3Si2Y0.16Zr1.84PO12-ionic liquid hybrid electrolytes: An approach for realizing solid-state sodium-ion batteries?. Journal of Power Sources, 2018, 383, 157-163.	7.8	23
52	Revisiting the energy efficiency and (potential) full-cell performance of lithium-ion batteries employing conversion/alloying-type negative electrodes. Journal of Power Sources, 2020, 473, 228583.	7.8	23
53	Modular development of metal oxide/carbon composites for electrochemical energy conversion and storage. Journal of Materials Chemistry A, 2019, 7, 13096-13102.	10.3	22
54	Zincâ€ion Hybrid Supercapacitors Employing Acetateâ€Based Waterâ€inâ€Salt Electrolytes. Small, 2022, 18, .	10.0	22

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55	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
56	Portable High Voltage Integrated Harvesting-Storage Device Employing Dye-Sensitized Solar Module and All-Solid-State Electrochemical Double Layer Capacitor. Frontiers in Chemistry, 2018, 6, 443.	3.6	20
57	Enabling Reversible (De)Lithiation of Aluminum by using Bis(fluorosulfonyl)imideâ€Based Electrolytes. ChemSusChem, 2019, 12, 208-212.	6.8	19
58	Tragacanth Gum as Green Binder for Sustainable Waterâ€Processable Electrochemical Capacitor. ChemSusChem, 2021, 14, 356-362.	6.8	18
59	Amorphous Lithium Sulfide as Lithiumâ€Sulfur Battery Cathode with Low Activation Barrier. Energy Technology, 2019, 7, 1801013.	3.8	17
60	The Emergence of Aqueous Ammoniumâ€Ion Batteries. Angewandte Chemie, 2022, 134, .	2.0	16
61	Redoxâ€Mediated Redâ€Phosphorous Semiâ€Liquid Anode Enabling Metalâ€Free Rechargeable Naâ€Seawater Batteries with High Energy Density. Advanced Energy Materials, 2021, 11, 2102061.	19.5	13
62	Electrolytes based on Nâ€Butylâ€Nâ€Methylâ€Pyrrolidinium 4,5â€Dicyanoâ€2â€(Trifluoromethyl) Imidazole for High Voltage Electrochemical Double Layer Capacitors. ChemElectroChem, 2019, 6, 552-557.	3.4	9
63	On the nanoscopic structural heterogeneity of liquid n-alkyl carboxylic acids. Physical Chemistry Chemical Physics, 2021, 23, 20282-20287.	2.8	6
64	Lithiumâ€Ion Batteries: ZnFe₂O₄â€C/LiFePO₄â€CNT: A Novel Highâ€Power Lithiumâ€Ion Battery with Excellent Cycling Performance (Adv. Energy Mater. 10/2014). Advanced Energy Materials, 2014, 4, .	19.5	5
65	Investigation of a Fluorine-Free Phosphonium-Based Ionic Liquid Electrolyte and Its Compatibility with Lithium Metal. ACS Applied Materials & Interfaces, 2022, 14, 20888-20895.	8.0	4
66	Revisiting the Electrochemical Lithiation Mechanism of Aluminum and the Role of Liâ€rich Phases (Li 1+ x) Tj ETQq0 0 0 rgBT /Overlock 1	6.8	2
67	Lithium Batteries: Single-Ion Conducting Electrolyte Based on Electrospun Nanofibers for High-Performance Lithium Batteries (Adv. Energy Mater. 10/2019). Advanced Energy Materials, 2019, 9, 1970029.	19.5	2
68	Caseinâ€Derived Activated Carbon: Turning Expired Milk into Active Material for Electrochemical Capacitors. Energy Technology, 2020, 8, 1901225.	3.8	2
69	Liquidâ€Assisted Mechanochemical Synthesis of Liâ€Doped Sulfide Glass Electrolyte. Energy Technology, 2021, 9, 2100385.	3.8	2
70	Study of Carbon Nanotubes for Lithium-Ion Batteries Application. Advances in Science and Technology, 0, , .	0.2	0
71	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