

Charl J Jafta

List of Publications by Year in descending order

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92
papers

2,573
citations

172457

29
h-index

214800

47
g-index

96
all docs

96
docs citations

96
times ranked

3779
citing authors

#	ARTICLE	IF	CITATIONS
1	Reduced Graphene Oxide Aerogels with Functionalization-Mediated Disordered Stacking for Sodium-Ion Batteries. <i>Batteries</i> , 2022, 8, 12.	4.5	5
2	Facile Surface Coatings for Performance Improvement of NMC811 Battery Cathode Material. <i>Journal of the Electrochemical Society</i> , 2022, 169, 020565.	2.9	15
3	Enhancing Cycling Stability and Capacity Retention of NMC811 Cathodes by Reengineering Interfaces via Electrochemical Fluorination. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	10
4	Reviewâ€”Electrospun Inorganic Solid-State Electrolyte Fibers for Battery Applications. <i>Journal of the Electrochemical Society</i> , 2022, 169, 050527.	2.9	7
5	A lightweight thermally insulating and moisture-stable composite made of hollow silica particles. <i>RSC Advances</i> , 2022, 12, 15373-15377.	3.6	5
6	Insight into the Solid Electrolyte Interphase Formation in Bis(fluorosulfonyl)Imide Based Ionic Liquid Electrolytes. <i>Advanced Functional Materials</i> , 2021, 31, 2008708.	14.9	30
7	Directed Assembly of Multiâ€”Walled Nanotubes and Nanoribbons of Amino Acid Amphiphiles Using a Layerâ€”byâ€”Layer Approach. <i>Chemistry - A European Journal</i> , 2021, 27, 6904-6910.	3.3	2
8	Recovery of Cathode Materials and Aluminum Foil Using a Green Solvent. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 6048-6055.	6.7	59
9	Dynamics of Emim ⁺ in [Emim][TFSI]/LiTFSI Solutions as Bulk and under Confinement in a Quasi-liquid Solid Electrolyte. <i>Journal of Physical Chemistry B</i> , 2021, 125, 5443-5450.	2.6	8
10	Solid Electrolyte Interphases: Insight into the Solid Electrolyte Interphase Formation in Bis(fluorosulfonyl)Imide Based Ionic Liquid Electrolytes (Adv. Funct. Mater. 23/2021). <i>Advanced Functional Materials</i> , 2021, 31, 2170163.	14.9	0
11	Investigating Multiscale Spatial Distribution of Sulfur in a CNT Scaffold and Its Impact on Liâ€”S Cell Performance. <i>Journal of Physical Chemistry C</i> , 2021, 125, 13146-13157.	3.1	24
12	MXene Reinforced Thermosetting Composite for Lightning Strike Protection of Carbon Fiber Reinforced Polymer. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100803.	3.7	7
13	Improving Contact Impedance via Electrochemical Pulses Applied to Lithiumâ€”Solid Electrolyte Interface in Solid-State Batteries. <i>ACS Energy Letters</i> , 2021, 6, 3669-3675.	17.4	40
14	Al ₂ O ₃ /TiO ₂ coated separators: Roll-to-roll processing and implications for improved battery safety and performance. <i>Journal of Power Sources</i> , 2021, 507, 230259.	7.8	30
15	Quantifying the chemical, electrochemical heterogeneity and spatial distribution of (poly) sulfide species using Operando SANS. <i>Energy Storage Materials</i> , 2021, 40, 219-228.	18.0	7
16	Nanostructured ligament and fiber Alâ€”doped Li ₇ La ₃ Zr ₂ O ₁₂ scaffolds to mediate cathode-electrolyte interface chemistry. <i>Journal of Power Sources</i> , 2021, 513, 230551.	7.8	9
17	Progress of nanotechnology for lithium-sulfur batteries. <i>Frontiers of Nanoscience</i> , 2021, 19, 137-164.	0.6	3
18	Operando Analysis of Gas Evolution in TiNb ₂ O ₇ (TNO)-Based Anodes for Advanced High-Energy Lithium-Ion Batteries under Fast Charging. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 55145-55155.	8.0	15

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19	Sustainable recycling of cathode scraps via Cyrene-based separation. Sustainable Materials and Technologies, 2020, 25, e00202.	3.3	28
20	Lithium Iron Aluminum Nickelate, $\text{LiNi}_x\text{Fe}_y\text{Al}_z\text{O}_2$ "New Sustainable Cathodes for Next-Generation Cobalt-Free Li-Ion Batteries. Advanced Materials, 2020, 32, e2002960.	21.0	77
21	Encapsulated Sb and Sb_2O_3 particles in waste-tire derived carbon as stable composite anodes for sodium-ion batteries. Sustainable Energy and Fuels, 2020, 4, 3613-3622.	4.9	13
22	Sodium Oxide Cathodes: Insights into the Enhanced Cycle and Rate Performances of the P_2 -Type Oxide Cathodes for Sodium-Ion Batteries (Adv. Energy Mater. 19/2020). Advanced Energy Materials, 2020, 10, 2070087.	19.5	2
23	Eutectic Synthesis of the P_2 -Type $\text{Na}_x\text{Fe}_{1/2}\text{Mn}_{1/2}\text{O}_2$ Cathode with Improved Cell Design for Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 23951-23958.	8.0	21
24	Carbon Coated Porous Titanium Niobium Oxides as Anode Materials of Lithium-Ion Batteries for Extreme Fast Charge Applications. ACS Applied Energy Materials, 2020, 3, 5657-5665.	5.1	53
25	Synthesizing High-Capacity Oxyfluoride Conversion Anodes by Direct Fluorination of Molybdenum Dioxide (MoO_2). ChemSusChem, 2020, 13, 3825-3834.	6.8	12
26	A Multidimensional Operando Study Showing the Importance of the Electrode Macrostructure in Lithium Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 6965-6976.	5.1	11
27	Insights into the Enhanced Cycle and Rate Performances of the P_2 -Type Oxide Cathodes for Sodium-Ion Batteries. Advanced Energy Materials, 2020, 10, 2000135.	19.5	57
28	Probing Thermal Stability of Li-Ion Battery Ni-Rich Layered Oxide Cathodes by means of Operando Gas Analysis and Neutron Diffraction. ACS Applied Energy Materials, 2020, 3, 7058-7065.	5.1	28
29	Probing the $\text{Li}_4\text{Ti}_5\text{O}_{12}$ Interface Upon Lithium Uptake by Operando Small Angle Neutron Scattering. ChemSusChem, 2020, 13, 3654-3661.	6.8	9
30	An ultrastable heterostructured oxide catalyst based on high-entropy materials: A new strategy toward catalyst stabilization via synergistic interfacial interaction. Applied Catalysis B: Environmental, 2020, 276, 119155.	20.2	72
31	High accuracy in-situ direct gas analysis of Li-ion batteries. Journal of Power Sources, 2020, 466, 228211.	7.8	20
32	(Invited) Understanding the Dynamics of Confined Species in Electrochemical Energy Storage Materials. ECS Meeting Abstracts, 2020, MA2020-01, 52-52.	0.0	0
33	A dicyanobenzoquinone based cathode material for rechargeable lithium and sodium ion batteries. Journal of Materials Chemistry A, 2019, 7, 17888-17895.	10.3	35
34	Simultaneously Boosting the Ionic Conductivity and Mechanical Strength of Polymer Gel Electrolyte Membranes by Confining Ionic Liquids into Hollow Silica Nanocavities. Batteries and Supercaps, 2019, 2, 985-991.	4.7	21
35	Probing microstructure and electrolyte concentration dependent cell chemistry <i>via operando</i> small angle neutron scattering. Energy and Environmental Science, 2019, 12, 1866-1877.	30.8	36
36	Cationic and chain-packing effects on surfactant self-assembly in the ionic liquid ethylammonium nitrate. Journal of Colloid and Interface Science, 2019, 540, 515-523.	9.4	16

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37	Mechanochemical Synthesis of High Entropy Oxide Materials under Ambient Conditions: Dispersion of Catalysts via Entropy Maximization. , 2019, 1, 83-88.		143
38	Analysis of Dimer Impurity in Polyamidoamine Dendrimer Solutions by Small-angle Neutron Scattering. Chinese Journal of Polymer Science (English Edition), 2019, 37, 827-833.	3.8	10
39	Non-destructive characterization of lithium deposition at the Li/separator and Li/carbon matrix interregion by synchrotron X-ray tomography. Nano Energy, 2019, 62, 11-19.	16.0	26
40	Fluorination of MXene by Elemental F ₂ as Electrode Material for Lithium-Ion Batteries. ChemSusChem, 2019, 12, 1271-1271.	6.8	0
41	Recent In Situ/Operando Characterization of Lithium-Sulfur Batteries. Environmental Chemistry for A Sustainable World, 2019, , 21-40.	0.5	2
42	Fluorination of MXene by Elemental F ₂ as Electrode Material for Lithium-Ion Batteries. ChemSusChem, 2019, 12, 1316-1324.	6.8	28
43	Bis(trimethylsilyl) 2-fluoromalonate derivatives as electrolyte additives for high voltage lithium ion batteries. Journal of Power Sources, 2019, 412, 527-535.	7.8	47
44	Fluorination of Mxene by Elemental F ₂ as Electrode for Lithium-Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
45	New Electrolyte Additives for High Voltage Lithium Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
46	Operando SANS and Synchrotron Radiography Characterization of the Carbon Cathode from Lithium Sulfur Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
47	(Invited) In-Operando Neutron Scattering Studies of Interfacial Electrolyte Chemistry. ECS Meeting Abstracts, 2019, , .	0.0	0
48	Dicyanobenzoquinone Functionalized Carbon Nanotubes As Cathode Materials for Rechargeable Lithium and Sodium Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
49	Probing the electrode-electrolyte interface with in operando neutron scattering. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, a368-a368.	0.1	0
50	Investigation of an <i>in situ</i> chemically formed SEI from bis(fluorosulfonyl)imide based electrolyte on ordered mesoporous carbons. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, a336-a336.	0.1	0
51	Viscosity Transitions Driven by Thermoresponsive Self-Assembly in PHOS-g-P(PO-r-EO) Brush Copolymer. Macromolecules, 2018, 51, 1644-1653.	4.8	4
52	Mesoscopic structural organization in fluorinated room temperature ionic liquids. Comptes Rendus Chimie, 2018, 21, 757-770.	0.5	12
53	Stability of human serum albumin structure upon toxin uptake explored by small angle neutron scattering. Polymer, 2018, 141, 175-183.	3.8	2
54	Nanoscale organization in the fluorinated room temperature ionic liquid: Tetraethyl ammonium (trifluoromethanesulfonyl)(nonafluorobutylsulfonyl)imide. Journal of Chemical Physics, 2018, 148, 193816.	3.0	19

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55	Correlating Morphological Evolution of Li Electrodes with Degrading Electrochemical Performance of Li/LiCoO ₂ and Li/S Battery Systems: Investigated by Synchrotron X-ray Phase Contrast Tomography. ACS Energy Letters, 2018, 3, 356-365.	17.4	64
56	Micellization in binary biosurfactant/synthetic surfactant systems: Effects of temperature and hydrophobic group structure of alkyl benzenesulfonate. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 551, 174-184.	4.7	13
57	Methyl quantum tunneling in ionic liquid [DMLm][TFSI] facilitated by Bis(trifluoromethane)sulfonimide lithium salt. Scientific Reports, 2018, 8, 10354.	3.3	5
58	Ion Dynamics in Ionic-Liquid-Based Li-Ion Electrolytes Investigated by Neutron Scattering and Dielectric Spectroscopy. ChemSusChem, 2018, 11, 3512-3523.	6.8	22
59	Probing the electrode-electrolyte interface with in operando neutron scattering. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, a395-a395.	0.1	0
60	Porous Ti ₄ O ₇ Particles with Interconnected Pore Structure as a High-Efficiency Polysulfide Mediator for Lithium-Sulfur Batteries. Advanced Functional Materials, 2017, 27, 1701176.	14.9	127
61	Direct experimental observation of mesoscopic fluorine domains in fluorinated room temperature ionic liquids. Physical Chemistry Chemical Physics, 2017, 19, 13101-13110.	2.8	32
62	Mesoscopic organization in ionic liquids. Topics in Current Chemistry, 2017, 375, 58.	5.8	29
63	Tuning the solution organization of cationic polymers through interactions with bovine serum albumin. Physical Chemistry Chemical Physics, 2017, 19, 18471-18480.	2.8	9
64	Correlating pore size and shape to local disorder in microporous carbon: A combined small angle neutron and X-ray scattering study. Carbon, 2017, 123, 440-447.	10.3	50
65	Magnetic Properties of Zn _{0.5} Ni _{0.5} Fe ₂ O ₄ : the Effect of Synthesis Route. Journal of Superconductivity and Novel Magnetism, 2017, 30, 3321-3325.	1.8	0
66	The Nanoporous RP-20 Carbon Electrode as a Model for Energy Storage and Conversion Systems Studied with μ CT, SAXS and SANS Techniques. ECS Transactions, 2017, 77, 1133-1144.	0.5	5
67	Binder-free carbon monolith cathode material for operando investigation of high performance lithium-sulfur batteries with X-ray radiography. Energy Storage Materials, 2017, 9, 96-104.	18.0	23
68	Small-angle neutron scattering and molecular dynamics structural study of gelling DNA nanostars. Journal of Chemical Physics, 2016, 145, 084910.	3.0	30
69	Synthesis of Dispersible Mesoporous Nitrogen-Doped Hollow Carbon Nanoplates with Uniform Hexagonal Morphologies for Supercapacitors. ACS Applied Materials & Interfaces, 2016, 8, 29628-29636.	8.0	37
70	Multidimensional operando analysis of macroscopic structure evolution in lithium sulfur cells by X-ray radiography. Physical Chemistry Chemical Physics, 2016, 18, 10630-10636.	2.8	37
71	Microwave-assisted optimization of the manganese redox states for enhanced capacity and capacity retention of LiAl _x Mn _{2-x} O ₄ (x = 0 and 0.3) spinel materials. RSC Advances, 2015, 5, 32256-32262.	3.6	31
72	Microwave Irradiation Controls the Manganese Oxidation States of Nanostructured (Li _{0.2} Mn _{0.52} Ni _{0.13} Co _{0.13} Al _{0.02})O ₂ Layered Cathode Materials for High-Performance Lithium Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A768-A773.	2.9	24

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73	A high-rate aqueous symmetric pseudocapacitor based on highly graphitized onion-like carbon/birnessite-type manganese oxide nanohybrids. <i>Journal of Materials Chemistry A</i> , 2015, 3, 3480-3490.	10.3	93
74	Magnetism variations and susceptibility hysteresis at the metal-insulator phase transition temperature of VO ₂ in a composite film containing vanadium and tungsten oxides. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 375, 1-9.	2.3	15
75	Solution-combustion synthesized nickel-substituted spinel cathode materials (Li _x Ni _{1-x} Mn _{2-2x} O ₄ ; 0 ≤ x ≤ 0.2) for lithium ion battery: enhancing energy storage, capacity retention, and lithium ion transport. <i>Electrochimica Acta</i> , 2014, 128, 172-177.	5.2	57
76	Carbon nanotube-enhanced photoelectrochemical properties of metallo-octacarboxyphthalocyanines. <i>Journal of Materials Science</i> , 2014, 49, 340-346.	3.7	4
77	Electrochromic and electrochemical capacitive properties of tungsten oxide and its polyaniline nanocomposite films obtained by chemical bath deposition method. <i>Electrochimica Acta</i> , 2014, 128, 218-225.	5.2	72
78	In situ engineering of urchin-like reduced graphene oxide@Mn ₂ O ₃ @Mn ₃ O ₄ nanostructures for supercapacitors. <i>RSC Advances</i> , 2014, 4, 886-892.	3.6	40
79	Studies on Bare and Mg-doped LiCoO ₂ as a cathode material for Lithium ion Batteries. <i>Electrochimica Acta</i> , 2014, 128, 192-197.	5.2	64
80	High-performance aqueous asymmetric electrochemical capacitors based on graphene oxide/cobalt(ii)-tetrapyrizinoporphyrazine hybrids. <i>Journal of Materials Chemistry A</i> , 2013, 1, 2821.	10.3	42
81	Manganese oxide/graphene oxide composites for high-energy aqueous asymmetric electrochemical capacitors. <i>Electrochimica Acta</i> , 2013, 110, 228-233.	5.2	82
82	Microwave-Assisted Synthesis of High-Voltage Nanostructured LiMn _{1.5} Ni _{0.5} O ₄ Spinel: Tuning the Mn ³⁺ Content and Electrochemical Performance. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 7592-7598.	8.0	120
83	Tuning Electrolytic Manganese Dioxide for a High-Voltage Aqueous Asymmetric Electrochemical Capacitor. <i>ECS Transactions</i> , 2013, 50, 93-101.	0.5	2
84	Electrocatalytic oxidation of ethylene glycol at palladium-bimetallic nanocatalysts (PdSn and PdNi) supported on sulfonate-functionalised multi-walled carbon nanotubes. <i>Journal of Electroanalytical Chemistry</i> , 2013, 692, 26-30.	3.8	74
85	Modification to an Auger Electron Spectroscopy system for measuring segregation in a bi-crystal. <i>Journal of Instrumentation</i> , 2013, 8, P03020-P03020.	1.2	1
86	Synthesis, characterisation and electrochemical intercalation kinetics of nanostructured aluminium-doped Li[Li _{0.2} Mn _{0.54} Ni _{0.13} Co _{0.13}]O ₂ cathode material for lithium ion battery. <i>Electrochimica Acta</i> , 2012, 85, 411-422.	5.2	145
87	Fast microwave-assisted solvothermal synthesis of metal nanoparticles (Pd, Ni, Sn) supported on sulfonated MWCNTs: Pd-based bimetallic catalysts for ethanol oxidation in alkaline medium. <i>Electrochimica Acta</i> , 2012, 59, 310-320.	5.2	118
88	Epitaxial deposition of silver ultra-fine nano-clusters on defect-free surfaces of HOPG-derived few-layer graphene in a UHV multi-chamber by in situ STM, ex situ XPS, and ab initio calculations. <i>Nanoscale Research Letters</i> , 2012, 7, 173.	5.7	14
89	A PRESSURIZED Ar-FILLED ANNEALING SYSTEM. <i>Instrumentation Science and Technology</i> , 2010, 38, 261-267.	1.8	1
90	Fluorination of MXene by Elemental F ₂ as Electrode Material for Lithium-Ion Batteries. <i>ChemSusChem</i> , 0, , .	6.8	0

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91	V4: The Small Angle Scattering Instrument (SANS) at BER II. Journal of Large-scale Research Facilities JLSRF, 0, 2, A97.	0.0	6
92	Correlation of Oxygen Anion Redox Activity to In-plane Honeycomb Cation Ordering in Na _x Ni _y Mn _{1-x-y} O ₂ Cathodes. Advanced Energy and Sustainability Research, 0, , 2200027.	5.8	3