FrÃ©dÃ©ric Favier

List of Publications by Year
in descending order

109 papers	7,154 citations	87843 38 h-index	56687 83 g-index
122 all docs	122 docs citations	122 times ranked	8887 citing authors

#	Article	IF	Citations
1	MnO₂-MXene Composite as Electrode for Supercapacitor. Journal of the Electrochemical Society, 2022, 169, 030524.	1.3	17
2	Investigation of Electrochemical and Chemical Processes Occurring at Positive Potentials in â€œWater-in-Saltâ€•Electrolytes. Journal of the Electrochemical Society, 2021, 168, 050550.	1.3	12
3	On chip MnO2-based 3D micro-supercapacitors with ultra-high areal energy density. Energy Storage Materials, 2021, 38, 520-527.	9.5	39
4	Unveiling Pseudocapacitive Charge Storage Behavior in FeWO₄ Electrode Material by Operando Xâ€Ray Absorption Spectroscopy. Small, 2020, 16, e2002855.	5.2	16
5	Shuttle Effect Quantification for Redox Ionic Liquid Electrolyte Correlated to the Coulombic Efficiency of Supercapacitors. Batteries and Supercaps, 2020, 3, 1193-1200.	2.4	2
6	Competitive Salt Precipitation/Dissolution During Freeâ€Water Reduction in Waterâ€inâ€Salt Electrolyte. Angewandte Chemie - International Edition, 2020, 59, 15913-15917.	7.2	52
7	Competitive Salt Precipitation/Dissolution During Freeâ€Water Reduction in Waterâ€inâ€Salt Electrolyte. Angewandte Chemie, 2020, 132, 16047-16051.	1.6	23
8	Evaluation of the Properties of an Electrolyte Based on Formamide and LiTFSI for Electrochemical Capacitors. Journal of the Electrochemical Society, 2020, 167, 110508.	1.3	5
9	Modifications of MXene layers for supercapacitors. Nano Energy, 2020, 73, 104734.	8.2	149
10	(Invited) Anthraquinone on Carbon: Is There Any Way to Get It Working?. ECS Meeting Abstracts, 2020, MA2020-02, 608-608.	0.0	0
11	Laserâ€Induced Colloidal Writing of Organometallic Precursorâ€"Based Repeatable and Fast Pdâ€"Ni Hydrogen Sensor. Advanced Materials Interfaces, 2019, 6, 1900768.	1.9	12
12	Transport Properties of Li-TFSI Water-in-Salt Electrolytes. Journal of Physical Chemistry B, 2019, 123, 10514-10521.	1.2	60
13	Electrochemical study of asymmetric aqueous supercapacitors based on high density oxides: C/Ba0.5Sr0.5Co0.8Fe0.2O3-Î´ and FeWO4/Ba0.5Sr0.5Co0.8Fe0.2O3-Î´. Electrochimica Acta, 2019, 326, 134886.	2.6	7
14	Physicochemical properties and theoretical studies of novel fragile ionic liquids based on N-allyl-N,N-dimethylethylammonium cation. Journal of Molecular Liquids, 2019, 284, 522-535.	2.3	6
15	Investigation of the Fe / W / O System for Aqueous Electrochemical Capacitor Electrode Materials. ECS Meeting Abstracts, 2019, , .	0.0	0
16	Physical Properties, Electrochemical Stabilities and Molecular Dynamics Study of Novel Ionic Liquids Based Electrolytes for Electrochemical Application. ECS Meeting Abstracts, 2019, , .	0.0	0
17	(Invited) Storing Electrons and Holes in the Electrolyte - a New Opportunity for Supercapacitors. ECS Meeting Abstracts, 2019, , .	0.0	0
18	(Invited) Investigation of Ba0,5Sr0,5CoxFe1-XO3-Î” As Pseudocapacitive Electrode for Aqueous Electrochemical Capacitor. ECS Meeting Abstracts, 2019, , .	0.0	0

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19	Ba0.5Sr0.5CoxFe1-XO3-Î”: Investigation and Use of Multicationic Pseudocapacitive Oxides. ECS Meeting Abstracts, 2019, , .	0.0	0
20	â€œWater-in-Saltâ€•for Supercapacitors: A Compromise between Voltage, Power Density, Energy Density and Stability. Journal of the Electrochemical Society, 2018, 165, A657-A663.	1.3	127
21	Twoâ€Photon Fluorescence Imaging and Therapy of Cancer Cells with Anisotropic Goldâ€Nanoparticleâ€Supported Porous Silicon Nanostructures. ChemNanoMat, 2018, 4, 343-347.	1.5	7
22	Investigation of Ba0.5Sr0.5CoxFe1-xO3-Î´ as a pseudocapacitive electrode material with high volumetric capacitance. Electrochimica Acta, 2018, 271, 677-684.	2.6	12
23	Biredox ionic liquids: new opportunities toward high performance supercapacitors. Faraday Discussions, 2018, 206, 393-404.	1.6	33
24	Platinum for hydrogen sensing: surface and grain boundary scattering antagonistic effects in Pt@Au coreâ€“shell nanoparticle assemblies prepared using a Langmuirâ€“Blodgett method. Physical Chemistry Chemical Physics, 2018, 20, 383-394.	1.3	13
25	Polycationic oxides as potential electrode materials for aqueous-based electrochemical capacitors. Current Opinion in Electrochemistry, 2018, 9, 87-94.	2.5	19
26	Pseudocapacitive Behavior of Polycationic Oxides for Electrochemical Capacitors. ECS Meeting Abstracts, 2018, , .	0.0	0
27	Nano-Engineering of 2D Materials for Supercapacitors. ECS Meeting Abstracts, 2018, , .	0.0	0
28	Materials for Electrochemical Capacitors. , 2017, , 495-561.		25
29	New nanocomposite material as supercapacitor electrode prepared via restacking of Ni-Mn LDH and MnO2 nanosheets. Electrochimica Acta, 2017, 247, 1072-1079.	2.6	75
30	Electrospun Nanomaterials for Supercapacitor Electrodes: Designed Architectures and Electrochemical Performance. Advanced Energy Materials, 2017, 7, 1601301.	10.2	334
31	Biredox ionic liquids with solid-like redox density in the liquid state for high-energy supercapacitors. Nature Materials, 2017, 16, 446-453.	13.3	303
32	Resistive Sensors Based on Self-Assembled Core-Shell Nanoparticles. ECS Transactions, 2016, 75, 3-7.	0.3	0
33	Electrochemical study of aqueous asymmetric FeWO4/MnO2 supercapacitor. Journal of Power Sources, 2016, 326, 695-701.	4.0	59
34	Biredox ionic liquids: electrochemical investigation and impact of ion size on electron transfer. Electrochimica Acta, 2016, 206, 513-523.	2.6	32
35	Faradaic contributions in the supercapacitive charge storage mechanisms of manganese dioxides. Electrochimica Acta, 2016, 206, 479-489.	2.6	25
36	Improving the Volumetric Energy Density of Supercapacitors. Electrochimica Acta, 2016, 206, 458-463.	2.6	31

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37	Chemical Modification of Graphene Oxide through Diazonium Chemistry and Its Influence on the Structureâ€“Property Relationships of Graphene Oxideâ€“Iron Oxide Nanocomposites. Chemistry - A European Journal, 2015, 21, 12465-12474.	1.7	38
38	Nanocrystalline FeWO4 as a pseudocapacitive electrode material for high volumetric energy density supercapacitors operated in an aqueous electrolyte. Electrochemistry Communications, 2015, 57, 61-64.	2.3	66
39	Investigating Mechanisms Underlying Elevated-Temperature-Induced Capacity Fading of Aqueous MnO₂Polymorph Supercapacitors: Cryptomelane and Birnessite. Journal of the Electrochemical Society, 2015, 162, A5106-A5114.	1.3	21
40	Graphene-like carbide derived carbon for high-power supercapacitors. Nano Energy, 2015, 12, 197-206.	8.2	114
41	Microwave-Assisted Decoration of Carbon Substrates for Manganese Dioxide-Based Supercapacitors. Journal of the Electrochemical Society, 2015, 162, A5133-A5139.	1.3	10
42	Electronic and Mechanical Antagonist Effects in Resistive Hydrogen Sensors Based on Pd@Au Coreâ€“Shell Nanoparticle Assemblies Prepared by Langmuirâ€“Blodgett. Journal of Physical Chemistry C, 2015, 119, 10130-10139.	1.5	18
43	MnO2 as ink material for the fabrication of supercapacitor electrodes. Electrochimica Acta, 2015, 152, 520-529.	2.6	26
44	Morphology Effects on the Supercapacitive Electrochemical Performances of Iron Oxide/Reduced Graphene Oxide Nanocomposites. ChemElectroChem, 2014, 1, 747-754.	1.7	26
45	Oxidation pathways towards Si amorphous layers or nanocrystalline powders as Li-ion batteries anodes. Materials for Renewable and Sustainable Energy, 2014, 3, 1.	1.5	29
46	Size and strain dependent activity of Ni nano and micro particles for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2013, 38, 11695-11708.	3.8	21
47	Silicon carbide with tunable ordered mesoporosity. Microporous and Mesoporous Materials, 2013, 180, 172-177.	2.2	14
48	Microstructural and Morphological Effects on Charge Storage Properties in MnO₂-Carbon Nanofibers Based Supercapacitors. Journal of the Electrochemical Society, 2013, 160, A2315-A2321.	1.3	32
49	Palladiumâ€“Silver Mesowires for the Extended Detection of H₂. ACS Applied Materials & Interfaces, 2013, 5, 310-318.	4.0	18
50	Ordered mesoporous silicon carbide-derived carbon for high-power supercapacitors. Electrochemistry Communications, 2013, 34, 109-112.	2.3	75
51	Nanogaps for hydrogen sensing. , 2012, , .		0
52	Highly ordered palladium nanodot patterns for full concentration range hydrogen sensing. Nanoscale, 2012, 4, 1964.	2.8	35
53	In situ crystallographic investigations of charge storage mechanisms in MnO2-based electrochemical capacitors. Journal of Power Sources, 2012, 206, 454-462.	4.0	124
54	New topotactic synthetic route to mesoporous silicon carbide. Journal of Materials Chemistry, 2011, 21, 15798.	6.7	18

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55	Zn, Ti and Si nanowires by electrodeposition in ionic liquid. Electrochemistry Communications, 2011, 13, 1252-1255.	2.3	30
56	Activated-phosphorus as new electrode material for Li-ion batteries. Electrochemistry Communications, 2011, 13, 346-349.	2.3	164
57	MnO2-coated Ni nanorods: Enhanced high rate behavior in pseudo-capacitive supercapacitor. Electrochimica Acta, 2010, 55, 7454-7459.	2.6	55
58	Fast and robust hydrogen sensors based on discontinuous palladium films on polyimide, fabricated on a wafer scale. Nanotechnology, 2010, 21, 505501.	1.3	32
59	Structural in Situ Study of the Thermal Behavior of Manganese Dioxide Materials: Toward Selected Electrode Materials for Supercapacitors. ACS Applied Materials & Interfaces, 2010, 2, 3493-3505.	4.0	82
60	The transition in hydrogen sensing behavior in noncontinuous palladium films. Applied Physics Letters, 2010, 97, .	1.5	43
61	Transparent electrochemical capacitor based on electrodeposited MnO2 thin film electrodes and gel-type electrolyte. Electrochemistry Communications, 2009, 11, 1259-1261.	2.3	30
62	Nanogaps for Sensing. Procedia Chemistry, 2009, 1, 746-749.	0.7	8
63	Microstructural Effects on Charge-Storage Properties in MnO₂-Based Electrochemical Supercapacitors. ACS Applied Materials & Interfaces, 2009, 1, 1130-1139.	4.0	561
64	Mesoporous carbonâ€“manganese oxide composite as negative electrode material for supercapacitors. Microporous and Mesoporous Materials, 2008, 110, 167-176.	2.2	58
65	A single nanotrench in a palladium microwire for hydrogen detection. Nanotechnology, 2008, 19, 125502.	1.3	61
66	Transparent MnO2-based Electrochemical Capacitor. ECS Meeting Abstracts, 2008, , .	0.0	0
67	Transparent MnO2-based Electrochemical Capacitor. ECS Transactions, 2008, 16, 193-196.	0.3	1
68	Long-term cycling behavior of asymmetric activated carbon/MnO2 aqueous electrochemical supercapacitor. Journal of Power Sources, 2007, 173, 633-641.	4.0	453
69	Electrochemical lithium insertion in Zn3P2 zinc phosphide. Journal of Physics and Chemistry of Solids, 2006, 67, 1233-1237.	1.9	23
70	Electrochemical preparation and characterization of Birnessite-type layered manganese oxide films. Journal of Physics and Chemistry of Solids, 2006, 67, 1351-1354.	1.9	38
71	Progress in the lithium insertion mechanism in Cu3P. Ionics, 2005, 11, 36-45.	1.2	19
72	Anode materials for lithium ion batteries in the Li-Zn-P system. Ionics, 2005, 11, 66-75.	1.2	26

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73	Electrochemical Lithium Insertion in Zn3P2 Zinc Phosphide. Chemistry of Materials, 2005, 17, 6761-6771.	3.2	64
74	Electrochemical Reactivity of Cu[sub 3]P with Lithium. Journal of the Electrochemical Society, 2004, 151, A2074.	1.3	74
75	Redox-Induced Structural Change in Anode Materials Based on Tetrahedral (MPn4)x- Transition Metal Pnictides.. ChemInform, 2004, 35, no.	0.1	0
76	The LixMPn4 phases (M/Pn = Ti/P, V/As): new negative electrode materials for lithium ion rechargeable batteries. Electrochimica Acta, 2004, 49, 2325-2332.	2.6	49
77	Manganese oxide nanocomposites: preparation and some electrochemical properties. Journal of Physics and Chemistry of Solids, 2004, 65, 235-239.	1.9	40
78	Cu3P as anode material for lithium ion battery: powder morphology and electrochemical performances. Journal of Power Sources, 2004, 136, 80-87.	4.0	84
79	Air stable copper phosphide (Cu3P): a possible negative electrode material for lithium batteries. Electrochemistry Communications, 2004, 6, 263-267.	2.3	101
80	Redox-Induced Structural Change in Anode Materials Based on Tetrahedral (MPn4)x- Transition Metal Pnictides. Chemistry of Materials, 2004, 16, 1002-1013.	3.2	63
81	Ball milling synthesis of LixTiP4: Improvement of the electrochemical performances. Ionics, 2003, 9, 71-76.	1.2	14
82	Metal Nanowire Arrays by Electrodeposition. ChemPhysChem, 2003, 4, 131-138.	1.0	136
83	â€œBeadedâ€•Bimetallic Nanowires: Wiring Nanoparticles of Metal 1 Using Nanowires of Metal 2. Advanced Materials, 2003, 15, 396-399.	11.1	41
84	Potential model for tetrathiafulvalene based on inelastic neutron scattering and Raman spectra. Journal of Chemical Physics, 2003, 119, 4929-4933.	1.2	3
85	Noble and Coinage Metal Nanowires by Electrochemical Step Edge Decoration. Journal of Physical Chemistry B, 2002, 106, 11407-11411.	1.2	184
86	Electrodeposition of portable, metal nanowire arrays. , 2002, 4807, 83.		3
87	Palladium Mesowire Arrays for Fast Hydrogen Sensors and Hydrogen-Actuated Switches. Analytical Chemistry, 2002, 74, 1546-1553.	3.2	234
88	First Anhydrous Gold Perchlorato Complex: ClO2Au(ClO4)4. Synthesis and Molecular and Crystal Structure Analysis. Inorganic Chemistry, 2002, 41, 4173-4178.	1.9	12
89	Electronic devices from electrodeposited metal nanowires. Microelectronic Engineering, 2002, 61-62, 555-561.	1.1	81
90	The bridging bidentate perchlorato group in ReO3(ClO4), ReO3(ClO4)Cl2O6 and Sb2Cl6(O)(OH)(ClO4), a vibrational analysis. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2002, 58, 2869-2875.	2.0	1

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91	Sensors from electrodeposited metal nanowires. Surface and Interface Analysis, 2002, 34, 409-412.	0.8	113
92	Hydrogen Sensors and Switches from Electrodeposited Palladium Mesowire Arrays. Science, 2001, 293, 2227-2231.	6.0	1,310
93	Size-Selective Growth of Nanoscale Tetrathiafulvalene Bromide Crystallites on Platinum Particles. Advanced Materials, 2001, 13, 1567.	11.1	26
94	Size-selective electrodeposition of meso-scale metal particles: a general method. Electrochimica Acta, 2001, 47, 671-677.	2.6	147
95	Anhydrous perchlorato complexes of palladium(II): Pd(ClO4)2, (ClO2)2Pd(ClO4)4, and (NO2)2Pd(ClO4)4. Syntheses and structural analyses. Canadian Journal of Chemistry, 2000, 78, 1544-1552.	0.6	4
96	Conformational preferences of bis(acetonitrile)tetrachloro molybdenum(IV) and tungsten(IV). Crystal structure of WCl4(CH3CN)2 and DFT calculations. New Journal of Chemistry, 1999, 23, 165-172.	1.4	8
97	Ba3NbAs3O: synthesis, crystal structure, Raman spectroscopy and bonding analysis. Journal of Alloys and Compounds, 1999, 284, 124-127.	2.8	5
98	Electrochemical Synthesis for the Control of Î³-Fe2O3 Nanoparticle Size. Morphology, Microstructure, and Magnetic Behavior. Chemistry of Materials, 1999, 11, 141-147.	3.2	330
99	Inorganic perchlorato complexes. Coordination Chemistry Reviews, 1998, 178-180, 865-902.	9.5	27
100	Crystalline and Molecular Structures of Anhydrous Lanthanide PerchloratesLn(ClO4)3withLn=La, Ce, Pr, Sm, Eu, Ho, Er, Tm, and Lu. Journal of Solid State Chemistry, 1998, 139, 259-265.	1.4	8
101	Thermal Behavior and X-ray Powder Diffraction Structures of Two Polymorphic Phases of Anhydrous Yb(ClO4)3. Inorganic Chemistry, 1998, 37, 1776-1780.	1.9	11
102	Triperchloratoytterbium(III) Monohydrate, Yb(ClO4)3.H2O. Acta Crystallographica Section C: Crystal Structure Communications, 1996, 52, 1872-1874.	0.4	6
103	Conformational preferences and protonation sequence of myo-inositol hexaphosphate in aqueous solution; potentiometric and multinuclear magnetic resonance studies. Journal of the Chemical Society Dalton Transactions, 1995, , 575.	1.1	38
104	Crystal and molecular structure of anhydrous copper(II) perchlorate. Journal of the Chemical Society Dalton Transactions, 1994, , 3119-3121.	1.1	7
105	SynthÃ¨ses et caractÃ©risations structurales de complexes perchlorato et triflato anhydres de praseodyme(III). Canadian Journal of Chemistry, 1994, 72, 2044-2049.	0.6	8
106	Synthesis and structural analysis of a homogeneous series of anhydrous rare-earth-metal perchlorates. Journal of the Chemical Society Dalton Transactions, 1992, , 1997.	1.1	20
107	Trifluoromethanesulphonate-selective liquid membrane electrode. Analyst, The, 1991, 116, 479.	1.7	5
108	Nanogaps for Sensing. Advances in Science and Technology, 0, , .	0.2	0

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109	Ionic Transport and Charge Distribution in Miniaturized Electrochemical Energy Storage Devices byModeling Investigation. Journal of the Electrochemical Society, 0, , .	1.3	1