List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Ultrathin High Surface Area Nickel Boride (Ni <i>_x</i> B) Nanosheets as Highly Efficient Electrocatalyst for Oxygen Evolution. Advanced Energy Materials, 2017, 7, 1700381.	19.5	348
2	Redox flow batteries: Status and perspective towards sustainable stationary energy storage. Journal of Power Sources, 2021, 481, 228804.	7.8	336
3	Discovery of a Multinary Noble Metal–Free Oxygen Reduction Catalyst. Advanced Energy Materials, 2018, 8, 1802269.	19.5	227
4	Complete Prevention of Dendrite Formation in Zn Metal Anodes by Means of Pulsed Charging Protocols. ACS Applied Materials & Interfaces, 2017, 9, 18691-18698.	8.0	130
5	Powder Catalyst Fixation for Postâ€Electrolysis Structural Characterization of NiFe Layered Double Hydroxide Based Oxygen Evolution Reaction Electrocatalysts. Angewandte Chemie - International Edition, 2017, 56, 11258-11262.	13.8	130
6	Rational design of the electrode morphology for oxygen evolution – enhancing the performance for catalytic water oxidation. RSC Advances, 2014, 4, 9579.	3.6	117
7	In situ visualization of Li-ion intercalation and formation of the solid electrolyte interphase on TiO2 based paste electrodes using scanning electrochemical microscopy. Chemical Communications, 2013, 49, 9347.	4.1	93
8	New Anthraquinoneâ€Based Conjugated Microporous Polymer Cathode with Ultrahigh Specific Surface Area for Highâ€Performance Lithiumâ€Ion Batteries. Advanced Functional Materials, 2020, 30, 1908074.	14.9	91
9	Is TiO ₂ (B) the Future of Titaniumâ€Based Battery Materials?. ChemPlusChem, 2015, 80, 785-795.	2.8	85
10	The importance of cell geometry for electrochemical impedance spectroscopy in three-electrode lithium ion battery test cells. Electrochemistry Communications, 2012, 22, 120-123.	4.7	81
11	Scanning electrochemical microscopy of Li-ion batteries. Physical Chemistry Chemical Physics, 2015, 17, 28441-28450.	2.8	81
12	Cobalt boride modified with N-doped carbon nanotubes as a high-performance bifunctional oxygen electrocatalyst. Journal of Materials Chemistry A, 2017, 5, 21122-21129.	10.3	73
13	Evaluation of Perovskites as Electrocatalysts for the Oxygen Evolution Reaction. ChemPhysChem, 2014, 15, 2810-2816.	2.1	70
14	Nanoelectrodes reveal the electrochemistry of single nickelhydroxide nanoparticles. Chemical Communications, 2016, 52, 2408-2411.	4.1	59
15	Electrode Engineering of Redox-Active Conjugated Microporous Polymers for Ultra-High Areal Capacity Organic Batteries. ACS Energy Letters, 2020, 5, 2945-2953.	17.4	59
16	Hydrogenâ€Treated Rutile TiO ₂ Shell in Graphiteâ€Core Structure as a Negative Electrode for Highâ€Performance Vanadium Redox Flow Batteries. ChemSusChem, 2017, 10, 2089-2098.	6.8	58
17	Influence of Temperature and Electrolyte Concentration on the Structure and Catalytic Oxygen Evolution Activity of Nickel–Iron Layered Double Hydroxide. Chemistry - A European Journal, 2018, 24, 13773-13777.	3.3	57
18	Solid Electrolyte Interphase (SEI) at TiO ₂ Electrodes in Li-Ion Batteries: Defining <i>Apparent</i> and <i>Effective</i> SEI Based on Evidence from X-ray Photoemission Spectroscopy and Scanning Electrochemical Microscopy. ACS Applied Materials & Interfaces, 2017, 9, 3123-3130.	8.0	52

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19	Evaluation of the Catalytic Performance of Gasâ€Evolving Electrodes using Local Electrochemical Noise Measurements. ChemSusChem, 2012, 5, 1905-1911.	6.8	51
20	Ultrafast Dischargeable LiMn ₂ O ₄ Thin-Film Electrodes with Pseudocapacitive Properties for Microbatteries. ACS Applied Materials & Interfaces, 2017, 9, 5295-5301.	8.0	50
21	Non-aqueous semi-solid flow battery based on Na-ion chemistry. P2-type Na _x Ni _{0.22} Co _{0.11} Mn _{0.66} O ₂ –NaTi _{2<!--<br-->Chemical Communications, 2015, 51, 7298-7301.}	subay1(PO<	sub94
22	A carbon-coated TiO2(B) nanosheet composite for lithium ion batteries. Chemical Communications, 2014, 50, 5506.	4.1	45
23	Tailoring of CNT surface oxygen groups by gas-phase oxidation and its implications for lithium ion batteries. Electrochemistry Communications, 2012, 15, 10-13.	4.7	44
24	A critical perspective on rechargeable Al-ion battery technology. Dalton Transactions, 2019, 48, 9906-9911.	3.3	42
25	Ammoniaâ€Annealed TiO ₂ as a Negative Electrode Material in Liâ€lon Batteries: N Doping or Oxygen Deficiency?. Chemistry - A European Journal, 2013, 19, 14194-14199.	3.3	39
26	Wet Nanoindentation of the Solid Electrolyte Interphase on Thin Film Si Electrodes. ACS Applied Materials & Interfaces, 2015, 7, 23554-23563.	8.0	39
27	Techniques and methodologies in modern electrocatalysis: evaluation of activity, selectivity and stability of catalytic materials. Analyst, The, 2014, 139, 1274.	3.5	38
28	Combined AFM/SECM Investigation of the Solid Electrolyte Interphase in Liâ€lon Batteries. ChemElectroChem, 2015, 2, 1607-1611.	3.4	38
29	Exceeding 6500 cycles for LiFePO ₄ /Li metal batteries through understanding pulsed charging protocols. Journal of Materials Chemistry A, 2018, 6, 4746-4751.	10.3	38
30	Revisiting the cycling stability of ferrocyanide in alkaline media for redox flow batteries. Journal of Power Sources, 2020, 471, 228453.	7.8	38
31	Hollow and Yolk‧hell Iron Oxide Nanostructures on Few‣ayer Graphene in Li″on Batteries. Chemistry - A European Journal, 2014, 20, 2022-2030.	3.3	37
32	Understanding surface reactivity of Si electrodes in Li-ion batteries by in operando scanning electrochemical microscopy. Chemical Communications, 2016, 52, 6825-6828.	4.1	37
33	New insights into phenazine-based organic redox flow batteries by using high-throughput DFT modelling. Sustainable Energy and Fuels, 2020, 4, 5513-5521.	4.9	37
34	Solid electrolyte interphase in semi-solid flow batteries: a wolf in sheep's clothing. Chemical Communications, 2015, 51, 14973-14976.	4.1	36
35	Investigation of different anode materials for aluminium rechargeable batteries. Journal of Power Sources, 2018, 374, 77-83.	7.8	36
36	An Intrinsic Selfâ€Charging Biosupercapacitor Comprised of a Highâ€Potential Bioanode and a Lowâ€Potential Biocathode. ChemPlusChem, 2017, 82, 576-583.	2.8	35

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37	TiO ₂ (B)/Anatase Composites Synthesized by Spray Drying as High Performance Negative Electrode Material in Liâ€Ion Batteries. ChemSusChem, 2013, 6, 1312-1315.	6.8	33
38	Impact of the Specific Surface Area on the Memory Effect in Liâ€lon Batteries: The Case of Anatase TiO ₂ . Advanced Energy Materials, 2014, 4, 1400829.	19.5	33
39	Scanning Electrochemical Microscopy Applied to the Investigation of Lithium (Deâ€)Insertion in TiO ₂ . Electroanalysis, 2015, 27, 1017-1025.	2.9	33
40	The Mechanism of the Interfacial Charge and Mass Transfer during Intercalation of Alkali Metal Cations. Advanced Science, 2016, 3, 1600211.	11.2	32
41	Mediated Alkaline Flow Batteries: From Fundamentals to Application. ACS Applied Energy Materials, 2019, 2, 8328-8336.	5.1	30
42	Operando studies of all-vanadium flow batteries: Easy-to-make reference electrode based on silver–silver sulfate. Journal of Power Sources, 2014, 271, 556-560.	7.8	28
43	Influence of surface functional groups on lithium ion intercalation of carbon cloth. Electrochimica Acta, 2012, 65, 22-29.	5.2	26
44	Correlative Electrochemical Microscopy for the Elucidation of the Local Ionic and Electronic Properties of the Solid Electrolyte Interphase in Liâ€Ion Batteries. Angewandte Chemie - International Edition, 2022, 61, .	13.8	25
45	Influence of ultrathin poly-(3,4-ethylenedioxythiophene) (PEDOT) film supports on the electrodeposition and electrocatalytic activity of discrete platinum nanoparticles. Journal of Solid State Electrochemistry, 2011, 15, 2331-2339.	2.5	24
46	Low temperature Hydrogen Reduction of High Surface Area Anatase and Anatase∬²â€TiO ₂ for Highâ€Chargingâ€Rate Batteries. ChemSusChem, 2014, 7, 2584-2589.	6.8	24
47	Reliable benchmark material for anatase TiO2 in Li-ion batteries: On the role of dehydration of commercial TiO2. Journal of Power Sources, 2014, 266, 155-161.	7.8	24
48	Onset potential determination at gas-evolving catalysts by means of constant-distance mode positioning of nanoelectrodes. Electrochimica Acta, 2015, 179, 38-44.	5.2	24
49	Detection of individual nanoparticle impacts using etched carbon nanoelectrodes. Electrochemistry Communications, 2016, 73, 67-70.	4.7	23
50	Unexpected Contribution of Current Collector to the Cost of Rechargeable Alâ€ion Batteries. ChemElectroChem, 2019, 6, 2766-2770.	3.4	23
51	CNTs grown on oxygen-deficient anatase TiO2â~δ as high-rate composite electrode material for lithium ion batteries. Electrochemistry Communications, 2012, 25, 132-135.	4.7	22
52	Revealing onset potentials using electrochemical microscopy to assess the catalytic activity of gas-evolving electrodes. Electrochemistry Communications, 2014, 38, 142-145.	4.7	22
53	Effect of the specific surface area on thermodynamic and kinetic properties of nanoparticle anatase TiO2 in lithium-ion batteries. Journal of Power Sources, 2015, 297, 140-148.	7.8	20
54	Nucleation and growth of poly(3,4-ethylenedioxythiophene) thin films on highly oriented pyrolytic graphite (HOPG) electrodes. Electrochemistry Communications, 2008, 10, 1752-1755.	4.7	19

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55	Thermally Stable Positive Electrolytes with a Superior Performance in Allâ€Vanadium Redox Flow Batteries. ChemPlusChem, 2015, 80, 354-358.	2.8	19
56	Electron Bottleneck in the Charge/Discharge Mechanism of Lithium Titanates for Batteries. ChemSusChem, 2015, 8, 1737-1744.	6.8	19
57	Overcoming the Instability of Nanoparticleâ€Based Catalyst Films in Alkaline Electrolyzers by using Selfâ€Assembling and Selfâ€Healing Films. Angewandte Chemie - International Edition, 2017, 56, 8573-8577.	13.8	19
58	An innovative multi-layer pulsed laser deposition approach for LiMn2O4 thin film cathodes. Thin Solid Films, 2018, 648, 108-112.	1.8	18
59	Widely commercial carbonaceous materials as cathode for Al-ion batteries. Carbon, 2020, 167, 475-484.	10.3	18
60	Demonstrating the steady performance of iron oxide composites over 2000 cycles at fast charge-rates for Li-ion batteries. Chemical Communications, 2016, 52, 7348-7351.	4.1	17
61	Mitigating capacity fading in aqueous organic redox flow batteries through a simple electrochemical charge balancing protocol. Journal of Power Sources, 2021, 512, 230516.	7.8	17
62	A Threeâ€Electrode, Batteryâ€Type Swagelok Cell for the Evaluation of Secondary Alkaline Batteries: The Case of the Ni–Zn Battery. ChemElectroChem, 2016, 3, 592-597.	3.4	16
63	Polybenzoxazineâ€Derived Nâ€doped Carbon as Matrix for Powderâ€Based Electrocatalysts. ChemSusChem, 2017, 10, 2653-2659.	6.8	16
64	Single entity electrochemistry for the elucidation of lithiation kinetics of TiO2 particles in non-aqueous batteries. Nano Energy, 2019, 57, 827-834.	16.0	16
65	Surface Properties of Battery Materials Elucidated Using Scanning Electrochemical Microscopy: The Case of Type I Silicon Clathrate. ChemElectroChem, 2020, 7, 665-671.	3.4	16
66	Why nanoelectrochemistry is necessary in battery research?. Current Opinion in Electrochemistry, 2021, 25, 100635.	4.8	16
67	Semiâ€solid flow battery and redox-mediated flow battery: two strategies to implement the use of solid electroactive materials in high-energy redox-flow batteries. Current Opinion in Chemical Engineering, 2022, 37, 100834.	7.8	16
68	Electrochemical, spectroscopic and electrogravimetric detection of oligomers occluded in electrochemically synthesized poly(3,4-ethylenedioxythiophene) films. Electrochimica Acta, 2008, 53, 4219-4227.	5.2	15
69	Using Cavity Microelectrodes for Electrochemical Noise Studies of Oxygenâ€Evolving Catalysts. ChemSusChem, 2015, 8, 560-566.	6.8	15
70	Understanding memory effects in Li-ion batteries: evidence of a kinetic origin in TiO ₂ upon hydrogen annealing. Chemical Communications, 2016, 52, 11524-11526.	4.1	15
71	Fixierung von NiFeâ€Hydrotalkitâ€Pulverkatalysatoren für die postelektrolytische strukturelle Charakterisierung von Elektrokatalysatoren für die Sauerstoffevolution. Angewandte Chemie, 2017, 129, 11411-11416.	2.0	15
72	Aging effects of anatase TiO2 nanoparticles in Li-ion batteries. Physical Chemistry Chemical Physics, 2014, 16, 7939.	2.8	14

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73	Utilization of the catalyst layer of dimensionally stable anodes. Part 2: Impact of spatial current distribution on electrocatalytic performance. Journal of Electroanalytical Chemistry, 2018, 828, 63-70.	3.8	14
74	Mechanical properties of SiLixthin films at different stages of electrochemical Li insertion. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2650-2656.	1.8	13
75	A new reflection–transmission bidimensional spectroelectrochemistry cell: Electrically controlled release of chemicals from a conducting polymer. Journal of Electroanalytical Chemistry, 2006, 596, 95-100.	3.8	12
76	One-pot synthesis of gold/poly(3,4-ethylendioxythiophene) nanocomposite. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	12
77	Oneâ€Pot Synthesis of Carbonâ€Coated Nanostructured Iron Oxide on Fewâ€Layer Graphene for Lithiumâ€lon Batteries. Chemistry - A European Journal, 2015, 21, 16154-16161.	3.3	12
78	Overcoming cathode poisoning from electrolyte impurities in alkaline electrolysis by means of self-healing electrocatalyst films. Nano Energy, 2018, 53, 763-768.	16.0	12
79	Al-Ion Battery Based on Semisolid Electrodes for Higher Specific Energy and Lower Cost. ACS Applied Energy Materials, 2020, 3, 2285-2289.	5.1	11
80	The Redoxâ€Mediated Nickel–Metal Hydride Flow Battery. Advanced Energy Materials, 2022, 12, 2102866.	19.5	10
81	Semi-flowable Zn semi-solid electrodes as renewable energy carrier for refillable Zn–Air batteries. Journal of Power Sources, 2022, 536, 231480.	7.8	8
82	High resolution, binder-free investigation of the intrinsic activity of immobilized NiFe LDH nanoparticles on etched carbon nanoelectrodes. Nano Research, 2018, 11, 6034-6044.	10.4	7
83	The injectable battery. A conceptually new strategy in pursue of a sustainable and circular battery model. Journal of Power Sources, 2020, 480, 228839.	7.8	7
84	Regenerative electrochemical ion pumping cell based on semi-solid electrodes for sustainable Li recovery. Desalination, 2022, 533, 115764.	8.2	6
85	Determination of calibration function in thermal field flow fractionation under thermal field programming. Journal of Separation Science, 2006, 29, 1088-1101.	2.5	5
86	Aqueous Mixed-Cation Semi-solid Hybrid-Flow Batteries. ACS Applied Energy Materials, 2018, , .	5.1	4
87	Selbstassemblierende und selbstheilende Partikelfilme zur Überwindung der Instabilitä nanopartikulär Katalysatorfilme in der alkalischen Elektrolyse. Angewandte Chemie, 2017, 129, 8696-8700.	2.0	3
88	Accelerated Electrochemical Investigation of Li Plating Efficiency as Key Parameter for Li Metal Batteries Utilizing a Scanning Droplet Cell. ChemElectroChem, 2021, 8, 3143-3149.	3.4	3
89	New Insights into SEI Formation in Lithium Ion Batteries: Inhomogeneous Distribution of Irreversible Charge Losses Across Graphite Electrodes. ECS Transactions, 2014, 62, 265-271.	0.5	2
90	Korrelative elektrochemische Mikroskopie zur Aufkläung der lokalen ionischen und elektronischen Eigenschaften der Festkörperâ€Elektrolyt Zwischenphase in Liâ€ionenâ€Batterien. Angewandte Chemie, 2022, 134, .	2.0	2

EDGAR A VENTOSA

#	Article	IF	CITATIONS
91	Frontispiece: Is TiO2 (B) the Future of Titanium-Based Battery Materials?. ChemPlusChem, 2015, 80, .	2.8	0
92	Application of Scanning Electrochemical Microscopy (SECM) to Study Electrocatalysis of Oxygen Reduction by MN4-Macrocyclic Complexes. , 2016, , 103-141.		0
93	Merging Flow and Non-Flow Batteries: K4fe(CN)6 Electrolyte – Ni(OH)2 Solid Material As Proof of Concept. ECS Meeting Abstracts, 2019, , .	0.0	0