Lei Dai

List of Publications by Year
in descending order

111 papers	3,514 citations	117625 34 h-index	168389 53 g-index
112 all docs	112 docs citations	112 times ranked	2883 citing authors

#	Article	IF	Citations
1	Low-cost marine biomass carbon as a high-performance electrocatalyst for vanadium redox flow battery. International Journal of Green Energy, 2022, 19, 1357-1366.	3.8	4
2	Effect of LiF on the ion conductivity and sinterability of (Al0.2Zr0.8)20/19Nb(PO4)3 solid electrolyte. Journal of Alloys and Compounds, 2021, 851, 156337.	5.5	2
3	Recent advances in metals and metal oxides as catalysts for vanadium redox flow battery: Properties, structures, and perspectives. Journal of Materials Science and Technology, 2021, 75, 96-109.	10.7	95
4	An impedimetric NH3 sensor based on YSZ and spinel-type oxide with Î¸ response. Sensors and Actuators B: Chemical, 2021, 327, 128874.	7.8	9
5	Recent advances of NASICON-Na3V2(PO4)3 as cathode for sodium-ion batteries: Synthesis, modifications, and perspectives. Journal of Alloys and Compounds, 2021, 867, 159060.	5.5	60
6	Zirconium boride as a novel negative catalyst for vanadium redox flow battery. Ceramics International, 2021, 47, 20276-20285.	4.8	18
7	Synergistic Catalysis of SnO2/Reduced Graphene Oxide for VO2+/VO2+ and V2+/V3+ Redox Reactions. Molecules, 2021, 26, 5085.	3.8	7
8	Nanostructured N-doped carbon materials derived from expandable biomass with superior electrocatalytic performance towards V2+/V3+ redox reaction for vanadium redox flow battery. Journal of Energy Chemistry, 2021, 59, 706-714.	12.9	72
9	Influence of rare-earth doping on the phase composition, sinterability, chemical stability and conductivity of BaHf0.8Ln0.2O3-Î´ (Ln = Yb, Y, Dy, Gd) proton conductors. International Journal of Hydrogen Energy, 2021, 46, 35678-35691.	7.1	13
10	Layered perovskite oxides Lan+1NinO3n+1 (n = 1, 2, and 3) for detecting ammonia under high temperature. Sensors and Actuators B: Chemical, 2021, 344, 130289.	7.8	5
11	Electrochemical exsolution of Ag nanoparticles from AgNbO3 sensing electrode for enhancing the performance of mixed potential type NH3 sensors. Sensors and Actuators B: Chemical, 2021, 344, 130296.	7.8	11
12	Structural design and interfacial characteristics endow NaTi2(PO4)3 coated zinc anode with high capacity and better cycling stability. Surface and Coatings Technology, 2021, 425, 127699.	4.8	7
13	High performance solid electrolyte-based NO2 sensor based on Co3V2O8 derived from metal-organic framework. Sensors and Actuators B: Chemical, 2020, 302, 127173.	7.8	22
14	Encapsulation of N-doped carbon layer via in situ dopamine polymerization endows nanostructured NaTi2(PO4)3 with superior lithium storage performance. Ceramics International, 2020, 46, 4402-4409.	4.8	16
15	Endowing electrospun carbon fiber with excellent electrocatalytic properties towards VO2+/VO2+ redox reaction for vanadium redox flow battery by in situ iridium decoration. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 586, 124137.	4.7	19
16	Synthesis and characterization of Ba2+ and W6+ co-doped apatite-type lanthanum silicate electrolytes. Ceramics International, 2020, 46, 5420-5429.	4.8	13
17	Recent advances in electrospun carbon fiber electrode for vanadium redox flow battery: Properties, structures, and perspectives. Carbon, 2020, 170, 527-542.	10.3	60
18	Electrospun carbon nanofiber inlaid with tungsten carbide nanoparticle by in-situ carbothermal reaction as bifunctional electrode for vanadium redox flow battery. Electrochimica Acta, 2020, 362, 137178.	5.2	13

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19	Oxygen vacancy and size controlling endow tin dioxide with remarked electrocatalytic performances towards vanadium redox reactions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 602, 125073.	4.7	6
20	Meliorating the sodium storage properties of NaTi2(PO4)3/C by rational structural design. Ionics, 2020, 26, 2891-2898.	2.4	1
21	Promoting the performances of NaTi2(PO4)3 electrode for sodium ion battery by reasonable crystal design and surface modification. Ceramics International, 2020, 46, 19452-19459.	4.8	13
22	Impedancemetric-type NO2 sensor based on non-stoichiometric perovskite type sensing electrode using multiple response signals. Sensors and Actuators B: Chemical, 2020, 321, 128551.	7.8	14
23	Application of porous biomass carbon materials in vanadium redox flow battery. Journal of Colloid and Interface Science, 2020, 566, 434-443.	9.4	56
24	Crystal doping of K ion on Na site raises the electrochemical performance of NaTi2(PO4)3/C anode for sodium-ion battery. Ionics, 2020, 26, 3387-3394.	2.4	9
25	One-step activation of high-graphitization N-doped porous biomass carbon as advanced catalyst for vanadium redox flow battery. Journal of Colloid and Interface Science, 2020, 572, 216-226.	9.4	52
26	Thiourea-Grafted Graphite Felts as Positive Electrode for Vanadium Redox Flow Battery. Frontiers in Chemistry, 2020, 8, 626490.	3.6	5
27	Mixed potential NH3 sensor based on La9.95K0.05Si5Al1O26.45 electrolyte and Ag doped BiVO4 sensing electrode. Sensors and Actuators B: Chemical, 2020, 316, 128206.	7.8	21
28	K doping on Li site enables LiTi2(PO4)3/C excellent lithium storage performance. Solid State Ionics, 2019, 341, 115036.	2.7	7
29	In situ exsolution of PdO nanoparticles from non-stoichiometric LaFePd0.05O3+Î´ electrode for impedancemetric NO2 sensor. Sensors and Actuators B: Chemical, 2019, 298, 126827.	7.8	26
30	Enhancing NH3 sensing performance of mixed potential type sensors by chemical exsolution of Ag nanoparticle on AgNbO3 sensing electrode. Sensors and Actuators B: Chemical, 2019, 298, 126854.	7.8	28
31	A novel mixed-potential type NH3 sensor based on Ag nanoparticles decorated AgNbO3 sensing electrode synthesized by demixing method. Sensors and Actuators B: Chemical, 2019, 301, 127146.	7.8	17
32	Endowing LiTi2(PO4)3/C with excellent electrochemical performances through rational crystal doping. Ceramics International, 2019, 45, 23406-23410.	4.8	4
33	Mixed-potential type NH3 sensor based on La10Si5.5Al0.5O27 electrolyte and CuV2O6 sensing electrode. Sensors and Actuators B: Chemical, 2019, 294, 206-215.	7.8	22
34	Electrocatalytic performance of TiO ₂ with different phase state towards V ²⁺ /V ³⁺ reaction for vanadium redox flow battery. International Journal of Energy Research, 2019, 43, 4473-4482.	4.5	17
35	ZrO2 nanoparticle embedded carbon nanofibers by electrospinning technique as advanced negative electrode materials for vanadium redox flow battery. Electrochimica Acta, 2019, 309, 166-176.	5.2	96
36	Preparation of Carbon Nanosheet by Molten Salt Route and Its Application in Catalyzing VO²⁺/VO₂⁺ Redox Reaction. Journal of the Electrochemical Society, 2019, 166, A953-A959.	2.9	30

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37	Synthesis and performance of a graphene decorated NaTi2(PO4)3/C anode for aqueous lithium-ion batteries. Journal of Alloys and Compounds, 2019, 791, 176-183.	5.5	63
38	Electrospun nitrogen-doped carbon nanofiber as negative electrode for vanadium redox flow battery. Applied Surface Science, 2019, 469, 423-430.	6.1	88
39	Enhanced lithium storage performance of nanostructured NaTi2(PO4)3 decorated by nitrogen-doped carbon. Electrochimica Acta, 2019, 294, 226-232.	5.2	66
40	KHCO3 activated carbon microsphere as excellent electrocatalyst for VO2+/VO2+ redox couple for vanadium redox flow battery. Journal of Energy Chemistry, 2019, 29, 103-110.	12.9	43
41	Sulfonated Carbon Nanotubes as Superior Catalysts towards V³⁺/V²⁺Redox Reaction for Vanadium Redox Flow Battery. Journal of the Electrochemical Society, 2018, 165, A932-A938.	2.9	18
42	Enhanced glucose sensing based on a novel composite Co^{II}-MOF/Acb modified electrode. Dalton Transactions, 2018, 47, 3872-3879.	3.3	35
43	Boosting the electrocatalytic performance of carbon nanotubes toward V(V)/V(IV) reaction by sulfonation treatment. International Journal of Energy Research, 2018, 42, 1625-1634.	4.5	13
44	Enhanced sensing performance of mixed potential ammonia gas sensor based on Bi0.95Ni0.05VO3.975 by silver. Sensors and Actuators B: Chemical, 2018, 259, 668-676.	7.8	26
45	Electrocatalytic activity of cobalt phosphide-modified graphite felt toward VO2+/VO2+ redox reaction. Applied Surface Science, 2018, 436, 1030-1037.	6.1	17
46	A novel electrochemical sensor for glucose detection based on Ag@ZIF-67 nanocomposite. Sensors and Actuators B: Chemical, 2018, 260, 852-860.	7.8	227
47	Improvement of Al3+ ion conductivity by F doping of (Al0.2Zr0.8)4/3.8NbP3O12 solid electrolyte for mixed potential NH3 sensors. Ceramics International, 2018, 44, 8983-8991.	4.8	8
48	Impedancemetric NO2 sensor based on Pd doped perovskite oxide sensing electrode conjunction with phase angle response. Electrochimica Acta, 2018, 265, 411-418.	5.2	20
49	N,P co-doped carbon microsphere as superior electrocatalyst for VO2+/VO2+ redox reaction. Electrochimica Acta, 2018, 259, 122-130.	5.2	72
50	Boosting the performance of LiTi2(PO4)3/C anode for aqueous lithium ion battery by Sn doping on Ti sites. Journal of Alloys and Compounds, 2018, 731, 32-38.	5.5	66
51	Carbon layer-exfoliated, wettability-enhanced, SO3H-functionalized carbon paper: A superior positive electrode for vanadium redox flow battery. Carbon, 2018, 127, 297-304.	10.3	100
52	Impact of Fe doping on performance of NaTi2(PO4)3/C anode for aqueous lithium ion battery. Solid State Ionics, 2018, 327, 123-128.	2.7	26
53	Improved lithium storage performance of NaTi2(PO4)3/C composite connected by carbon nanotubes. Solid State Ionics, 2018, 325, 189-195.	2.7	12
54	N-doped carbon coated LiTi2(PO4)3 as superior anode using PANi as carbon and nitrogen bi-sources for aqueous lithium ion battery. Electrochimica Acta, 2018, 279, 279-288.	5.2	72

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55	Phosphorus Doped Multiâ€Walled Carbon Nanotubes: An Excellent Electrocatalyst for the VO²⁺/VO₂⁺ Redox Reaction. ChemElectroChem, 2018, 5, 2464-2474.	3.4	18
56	Effect of Sn doping on the electrochemical performance of NaTi2(PO4)3/C composite. Ceramics International, 2018, 44, 15646-15652.	4.8	30
57	Improvement of sinterability of BaZr0.8Y0.2O3-Î´ for H2 separation using Li2O/ZnO dual-sintering aid. Ceramics International, 2018, 44, 15935-15943.	4.8	23
58	Fungi-Derived, Functionalized, and Wettability-Improved Porous Carbon Materials: An Excellent Electrocatalyst toward VO²⁺/VO₂⁺Redox Reaction for Vanadium Redox Flow Battery. Journal of the Electrochemical Society, 2018, 165, A1813-A1821.	2.9	14
59	Enhanced selective performance of mixed potential ammonia gas sensor by Au nanoparticles decorated CeVO4 sensing electrode. Sensors and Actuators B: Chemical, 2018, 272, 219-228.	7.8	56
60	Flexible electrospun carbon nanofiber embedded with TiO2 as excellent negative electrode for vanadium redox flow battery. Electrochimica Acta, 2018, 281, 601-610.	5.2	115
61	Improving the electrocatalytic performance of carbon nanotubes for VO2+/VO2+ redox reaction by KOH activation. Applied Surface Science, 2017, 401, 106-113.	6.1	46
62	An enhanced sensitivity towards H2O2 reduction based on a novel Cu metalâ€“organic framework and acetylene black modified electrode. Electrochimica Acta, 2017, 230, 324-332.	5.2	72
63	Hierarchically 3D porous films electrochemically constructed on gasâ€“liquidâ€“solid three-phase interface for energy application. Journal of Materials Chemistry A, 2017, 5, 9488-9513.	10.3	76
64	HF/H2O2 treated graphite felt as the positive electrode for vanadium redox flow battery. Applied Surface Science, 2017, 423, 111-118.	6.1	60
65	High-temperature NO 2 sensor based on aluminum/indium co-doped lanthanum silicate oxyapatite electrolyte and cobalt-free perovskite oxide sensing electrode. Sensors and Actuators B: Chemical, 2017, 250, 629-640.	7.8	13
66	Synthesis and electrochemical properties of Na-doped LiTi2(PO4)3@carbon composite as anode for aqueous lithium ion batteries. Ceramics International, 2017, 43, 11481-11487.	4.8	25
67	Graphite felt electrode modified by square wave potential pulse for vanadium redox flow battery. International Journal of Energy Research, 2017, 41, 439-447.	4.5	28
68	Mixed-potential type NH3 sensor based on TiO2 sensing electrode with a phase transformation effect. Sensors and Actuators B: Chemical, 2017, 240, 962-970.	7.8	41
69	Electrochemically promoted electroless nickel-phosphorous plating on titanium substrate. Applied Surface Science, 2017, 392, 912-919.	6.1	40
70	Microstructure and electrical conductivity of alkaline elements doped apatite-type La10Si6O27 electrolytes. Ceramics International, 2017, 43, 289-295.	4.8	11
71	Advanced LiTi2(PO4)3/C anode by incorporation of carbon nanotubes for aqueous lithium-ion batteries. Ionics, 2017, 23, 575-583.	2.4	32
72	Modified carbon cloth as positive electrode with high electrochemical performance for vanadium redox flow batteries. Journal of Energy Chemistry, 2016, 25, 720-725.	12.9	29

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73	Advanced LiTi2(PO4)3@N-doped carbon anode for aqueous lithium ion batteries. Electrochimica Acta, 2016, 222, 1491-1500.	5.2	52
74	Synthesis and characterization of Al3+ and M (MÂ=ÂW6+, In3+, Nb5+, Mg2+) co-doped lanthanum silicate oxy-apatite electrolytes. International Journal of Hydrogen Energy, 2016, 41, 11340-11350.	7.1	13
75	Preparation of dual-phase composite BaCe0.8Y0.2O3/Ce0.8Y0.2O2 and its application for hydrogen permeation. Ceramics International, 2016, 42, 6391-6398.	4.8	21
76	An Impedancemetric NH₃Sensor Based on La₁₀Si₅MgO₂₆Electrolyte and Nano-Structured CoWO₄Sensing Electrode. Journal of the Electrochemical Society, 2016, 163, B1-B7.	2.9	17
77	Mixed-potential type NO 2 sensor based on La 10 Si 6 O 27 electrolyte and WO 3 sensing electrode with different morphologies. Ceramics International, 2016, 42, 9712-9716.	4.8	11
78	A novel mixed potential NH3 sensor based on TiO2@WO3 coreâ€“shell composite sensing electrode. Electrochimica Acta, 2016, 193, 302-310.	5.2	74
79	Mixed potential NH3 sensor based on Mg-doped lanthanum silicate oxyapatite. Sensors and Actuators B: Chemical, 2016, 224, 356-363.	7.8	41
80	Ammonia sensing characteristics of La10Si5MgO26-based sensors using In2O3 sensing electrode with different morphologies and CuO reference electrode. Sensors and Actuators B: Chemical, 2016, 228, 716-724.	7.8	46
81	A novel cobalt(II) metalâ€“organic framework based on an unprecedented ribbon-shaped secondary building unit. Inorganic Chemistry Communication, 2016, 65, 45-48.	3.9	2
82	Ammonia sensing characteristics of La10Si5MgO26-based amperometric-type sensor attached with nano-structured CoWO4 sensing electrode. Journal of Alloys and Compounds, 2016, 663, 86-93.	5.5	21
83	Preparation of dendritic bismuth film electrodes and their application for detection of trace Pb (II) and Cd (II). Chinese Journal of Chemical Engineering, 2016, 24, 410-414.	3.5	21
84	Influence of process parameters on the sensitivity of an amperometeric NO2 sensor with La0.75Sr0.25Cr0.5Mn0.5O3âˆ'Î´ sensing electrode prepared by the impregnation method. Ceramics International, 2015, 41, 3740-3747.	4.8	10
85	Effective improvement of sensing performance of amperometric NO2 sensor by Ag-modified nano-structured CuO sensing electrode. Sensors and Actuators B: Chemical, 2015, 207, 791-800.	7.8	36
86	Effect of Ba nonstoichiometry on the phase composition, microstructure, chemical stability and electrical conductivity of BaxCe0.7Zr0.1Y0.1Yb0.1O3âˆ'Î´ (0.9â‰¤xâ‰¤1.1) proton conductors. Ceramics International, 2015, 41, 7796-7802.	4.8	15
87	Effect of fluorine, chlorine and bromine doping on the properties of gadolinium doped barium cerate electrolytes. International Journal of Hydrogen Energy, 2015, 40, 8980-8988.	7.1	36
88	Mn3O4 anchored on carbon nanotubes as an electrode reaction catalyst of V(IV)/V(V) couple for vanadium redox flow batteries. Electrochimica Acta, 2015, 176, 1434-1440.	5.2	76
89	Production of nano-sized chromium carbide powders from Cr2O3/C precursors by direct electrochemical reduction in molten calcium chloride. International Journal of Refractory Metals and Hard Materials, 2015, 51, 153-159.	3.8	20
90	A direct electrochemical route from oxides to TiMn2 hydrogen storage alloy. Chinese Journal of Chemical Engineering, 2015, 23, 1865-1870.	3.5	6

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91	In-situ synthesis of MoSi2 coating on molybdenum substrate by electro-deoxidation of a SiO2 layer in molten salt. Ceramics International, 2015, 41, 13663-13670.	4.8	14
92	Direct electrochemical synthesis of zirconium carbide from zirconia/C precursors in molten calcium chloride. Ceramics International, 2015, 41, 4182-4188.	4.8	17
93	High temperature amperometric NO2 sensor based on nano-structured Gd0.2Sr0.8FeO3â^'Î´ prepared by impregnating method. Journal of Alloys and Compounds, 2014, 583, 361-365.	5.5	19
94	Preparation of ZrMn2 hydrogen storage alloy by electro-deoxidation in molten calcium chloride. Transactions of Nonferrous Metals Society of China, 2014, 24, 2883-2889.	4.2	13
95	A La10Si5NbO27.5 based electrochemical sensor using nano-structured NiO sensing electrode for detection of NO2. Materials Letters, 2013, 109, 16-19.	2.6	19
96	A novel impedancemetric NO2 sensor based on nano-structured La0.75Sr0.25Cr0.5Mn0.5O3â^'Î´ prepared by impregnating method. Sensors and Actuators B: Chemical, 2013, 188, 778-786.	7.8	17
97	A novel amperometric NO2 sensor based on nano-structured La0.75Sr0.25Cr0.5Mn0.5O3â^'Î´â€“Ag composite sensing electrode prepared by impregnating method. Materials Letters, 2013, 96, 206-209.	2.6	6
98	An amperometric NO2 sensor based on La10Si5NbO27.5 electrolyte and nano-structured CuO sensing electrode. Journal of Hazardous Materials, 2013, 262, 545-553.	12.4	39
99	Synthesis and properties of coreâ€“shell structured BaCe0.9Y0.1O2.95:BaZr0.9Y0.1O2.95. Ceramics International, 2013, 39, 7959-7966.	4.8	10
100	Structure, chemical stability, and electrochemical properties of Ba(Ce0.5Zr0.5)1â^'x Y x O3â^'Î´. Ionics, 2012, 18, 899-906.	2.4	2
101	A novel amperometric hydrogen sensor based on nano-structured ZnO sensing electrode and CaZr0.9In0.1O3â^'Î´ electrolyte. Sensors and Actuators B: Chemical, 2012, 173, 85-92.	7.8	19
102	A planar, impedancemetric NO2 sensor based on NiO nanoparticles sensing electrode. Materials Letters, 2012, 87, 24-27.	2.6	21
103	An amperometric NO2 sensor based on nano-structured La0.75Sr0.25Cr0.5Mn0.5O3â^'Î´ prepared by impregnating method. Journal of Alloys and Compounds, 2012, 526, 145-150.	5.5	18
104	Direct electrochemical preparation of CeCo5 alloy from mixed oxides. Transactions of Nonferrous Metals Society of China, 2012, 22, 2007-2013.	4.2	11
105	Investigation on Amperometric-type NO₂ Sensor Based on Nano CuO Electrode. Chinese Journal of Analytical Chemistry, 2012, 39, 1347-1351.	1.7	0
106	Investigation on Impedencemetric-type NO₂ Sensor Based on La_{0.75}Sr_{0.25}Mn_{0.5}Co_{0.5}O_{3-Î´} Sensing Electrode. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2011, 26, 523-528.	1.3	4
107	Sintering, chemical stability and electrical conductivity of the perovskite proton conductors BaCe0.45Zr0.45M0.1O3â^'Î´ (M=In, Y, Gd, Sm). Journal of Alloys and Compounds, 2009, 467, 376-382.	5.5	61
108	Direct electrolytic preparation of cerium/nickel hydrogen storage alloy powder in molten salt. Journal of Alloys and Compounds, 2009, 468, 379-385.	5.5	37

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109	Chemical stability of doped BaCeO3-BaZrO3 solid solutions in different atmospheres. Journal of Rare Earths, 2008, 26, 505-510.	4.8	83
110	A CO2 gas sensor based upon composite Nasicon/Srâ€“Î²â€“Al2O3 bielectrolyte. Solid State Ionics, 2008, 179, 1662-1665.	2.7	12
111	Anion doping enabling SnO₂ superior electrocatalytic performances for vanadium redox reactions. International Journal of Green Energy, 0, , 1-11.	3.8	3