Yan Chen

List of Publications by Year
in descending order

72	4,652	117625	98798
papers	citations	34 h-index	67 g-index

73	73	73	4513
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cation Size Mismatch and Charge Interactions Drive Dopant Segregation at the Surfaces of Manganite Perovskites. Journal of the American Chemical Society, 2013, 135, 7909-7925.	13.7	468
2	Anionic defect engineering of transition metal oxides for oxygen reduction and evolution reactions. Journal of Materials Chemistry A, 2019, 7, 5875-5897.	10.3	252
3	Controlling cation segregation in perovskite-based electrodes for high electro-catalytic activity and durability. Chemical Society Reviews, 2017, 46, 6345-6378.	38.1	246
4	A robust and active hybrid catalyst for facile oxygen reduction in solid oxide fuel cells. Energy and Environmental Science, 2017, 10, 964-971.	30.8	204
5	Tuning Electronic Structure of Single Layer MoS₂ through Defect and Interface Engineering. ACS Nano, 2018, 12, 2569-2579.	14.6	203
6	A highly active, CO₂-tolerant electrode for the oxygen reduction reaction. Energy and Environmental Science, 2018, 11, 2458-2466.	30.8	202
7	Impact of Sr segregation on the electronic structure and oxygen reduction activity of SrTi1â^'xFexO3 surfaces. Energy and Environmental Science, 2012, 5, 7979.	30.8	179
8	Activating lattice oxygen in NiFe-based (oxy)hydroxide for water electrolysis. Nature Communications, 2022, 13, 2191.	12.8	179
9	Heterointerface engineering for enhancing the electrochemical performance of solid oxide cells. Energy and Environmental Science, 2020, 13, 53-85.	30.8	178
10	Improving the Activity for Oxygen Evolution Reaction by Tailoring Oxygen Defects in Double Perovskite Oxides. Advanced Functional Materials, 2019, 29, 1901783.	14.9	152
11	Surface Electronic Structure Transitions at High Temperature on Perovskite Oxides: The Case of Strained La_{0.8}Sr_{0.2}CoO₃ Thin Films. Journal of the American Chemical Society, 2011, 133, 17696-17704.	13.7	148
12	Defect Engineering in Single-Layer MoS₂ Using Heavy Ion Irradiation. ACS Applied Materials & Interfaces, 2018, 10, 42524-42533.	8.0	138
13	Uncovering the Effect of Lattice Strain and Oxygen Deficiency on Electrocatalytic Activity of Perovskite Cobaltite Thin Films. Advanced Science, 2019, 6, 1801898.	11.2	136
14	Segregated Chemistry and Structure on (001) and (100) Surfaces of (La_{1â€“x}Sr_x)₂CoO₄ Override the Crystal Anisotropy in Oxygen Exchange Kinetics. Chemistry of Materials, 2015, 27, 5436-5450.	6.7	115
15	Regulating surface oxygen species on copper (I) oxides via plasma treatment for effective reduction of nitrate to ammonia. Applied Catalysis B: Environmental, 2022, 305, 121021.	20.2	98
16	Tuning proton-coupled electron transfer by crystal orientation for efficient water oxidization on double perovskite oxides. Nature Communications, 2020, 11, 4299.	12.8	93
17	Fast oxygen exchange and diffusion kinetics of grain boundaries in Sr-doped LaMnO₃thin films. Physical Chemistry Chemical Physics, 2015, 17, 7659-7669.	2.8	92
18	Electronic Activation of Cathode Superlattices at Elevated Temperatures â€“ Source of Markedly Accelerated Oxygen Reduction Kinetics. Advanced Energy Materials, 2013, 3, 1221-1229.	19.5	88

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19	An In Situ Formed, Dualâ€Phase Cathode with a Highly Active Catalyst Coating for Protonic Ceramic Fuel Cells. Advanced Functional Materials, 2018, 28, 1704907.	14.9	82
20	Dislocations Accelerate Oxygen Ion Diffusion in La_{0.8}Sr_{0.2}MnO₃ Epitaxial Thin Films. ACS Nano, 2017, 11, 11475-11487.	14.6	80
21	Vertically aligned nanocomposite La_{0.8}Sr_{0.2}CoO₃/(La_{0.5}Sr_{0.5})₂CoO₄ cathodes â€“ electronic structure, surface chemistry and oxygen reduction kinetics. Journal of Materials Chemistry A, 2015, 3, 207-219.	10.3	76
22	Improving the Electrocatalytic Activity and Durability of the La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3â˜Î´} Cathode by Surface Modification. ACS Applied Materials & Interfaces, 2018, 10, 39785-39793.	8.0	71
23	Constructing MoS2/Lignin-derived carbon nanocomposites for highly efficient removal of Cr(VI) from aqueous environment. Journal of Hazardous Materials, 2021, 408, 124847.	12.4	65
24	Oxygen defect engineering in double perovskite oxides for effective water oxidation. Journal of Materials Chemistry A, 2020, 8, 10957-10965.	10.3	60
25	Promoting biomass electrooxidation via modulating proton and oxygen anion deintercalation in hydroxide. Nature Communications, 2022, 13, .	12.8	60
26	Self-Templated Synthesis of Hierarchically Porous N-Doped Carbon Derived from Biomass for Supercapacitors. ACS Sustainable Chemistry and Engineering, 2018, 6, 13932-13939.	6.7	58
27	Enhancing co-catalysis of MoS2 for persulfate activation in Fe3+-based advanced oxidation processes via defect engineering. Chemical Engineering Journal, 2021, 417, 127987.	12.7	58
28	Accelerated Oxygen Exchange Kinetics on Nd₂NiO_{4+Î´} Thin Films with Tensile Strain along c-Axis. ACS Nano, 2015, 9, 1613-1621.	14.6	54
29	Progress of Exsolved Metal Nanoparticles on Oxides as High Performance (Electro)Catalysts for the Conversion of Small Molecules. Small, 2021, 17, e2005383.	10.0	53
30	Modified Oxygen Defect Chemistry at Transition Metal Oxide Heterostructures Probed by Hard X-ray Photoelectron Spectroscopy and X-ray Diffraction. Chemistry of Materials, 2018, 30, 3359-3371.	6.7	48
31	Activating Lattice Oxygen in Perovskite Oxide by Bâ€Site Cation Doping for Modulated Stability and Activity at Elevated Temperatures. Advanced Science, 2021, 8, e2102713.	11.2	44
32	Electronic Structure Evolution of SrCoO_x during Electrochemically Driven Phase Transition Probed by in Situ X-ray Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 24148-24157.	3.1	40
33	Chemomechanics of ionically conductive ceramics for electrical energy conversion and storage. Journal of Electroceramics, 2014, 32, 3-27.	2.0	38
34	Generating Sub-nanometer Pores in Single-Layer MoS₂ by Heavy-Ion Bombardment for Gas Separation: A Theoretical Perspective. ACS Applied Materials & Interfaces, 2018, 10, 28909-28917.	8.0	37
35	Tunning the defects in lignin-derived-carbon and trimetallic layered double hydroxides composites (LDH@LDC) for efficient removal of U(VI) and Cr(VI) in aquatic environment. Chemical Engineering Journal, 2022, 428, 132113.	12.7	36
36	The Restructuring-Induced CoO_x Catalyst for Electrochemical Water Splitting. Jacs Au, 2021, 1, 2216-2223.	7.9	32

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37	Impact of Strain-Induced Changes in Defect Chemistry on Catalytic Activity of Nd₂NiO_{4+Î´} Electrodes. ACS Applied Materials & Interfaces, 2018, 10, 36926-36932.	8.0	31
38	Reducibility of Co at the La_{0.8}Sr_{0.2}CoO₃/(La_{0.5}Sr_{0.5})₂CoO₄ hetero-interface at elevated temperatures. Journal of Materials Chemistry A, 2014, 2, 14690.	10.3	30
39	Nanoscale Ni(OH)_x Films on Carbon Cloth Prepared by Atomic Layer Deposition and Electrochemical Activation for Glucose Sensing. ACS Applied Nano Materials, 2019, 2, 4427-4434.	5.0	30
40	Insights into the pollutant electron property inducing the transformation of peroxymonosulfate activation mechanisms on manganese dioxide. Applied Catalysis B: Environmental, 2022, 317, 121753.	20.2	29
41	Layered-perovskite oxides with in situ exsolved Coâ€“Fe alloy nanoparticles as highly efficient electrodes for high-temperature carbon dioxide electrolysis. Journal of Materials Chemistry A, 2022, 10, 2327-2335.	10.3	26
42	Topological and chemical investigation on super-hydrophobicity of PTFE surface caused by ion irradiation. Applied Surface Science, 2007, 254, 464-467.	6.1	25
43	Construction of Multifunctional Nanoarchitectures in One Step on a Composite Fuel Catalyst through In Situ Exsolution of La_{0.5}Sr_{0.5}Fe_{0.8}Ni_{0.1}Nb_{0.1}O_{3â˜Î´}. ACS Applied Materials & Interfaces, 2020, 12, 34890-34900.	8.0	23
44	Wettability characteristic of PTFE and glass surface irradiated by keV ions. Applied Surface Science, 2008, 254, 5497-5500.	6.1	22
45	Revealing the effects of oxygen defects on the electro-catalytic activity of nickel oxide. International Journal of Hydrogen Energy, 2020, 45, 424-432.	7.1	21
46	Enhancing the Intrinsic Activity and Stability of Perovskite Cobaltite at Elevated Temperature Through Surface Stress. Small, 2021, 17, e2104144.	10.0	21
47	Defect-Mediated Adsorption of Metal Ions for Constructing Ni Hydroxide/MoS₂ Heterostructures as High-Performance Water-Splitting Electrocatalysts. ACS Applied Energy Materials, 2020, 3, 7039-7047.	5.1	20
48	Applications of Ion Beam Irradiation in Multifunctional Oxide Thin Films: A Review. ACS Applied Electronic Materials, 2021, 3, 1031-1042.	4.3	20
49	Hierarchically Porous Co and Nâ€Codoped Carbon Hollow Structure Derived from PS@ZIFâ€67 as an Electrocatalyst for Oxygen Reduction. ChemistrySelect, 2018, 3, 4831-4837.	1.5	19
50	A Mini Review on the Application of Proton-Conducting Solid Oxide Cells for CO₂ Conversion. Energy & Fuels, 2020, 34, 13427-13437.	5.1	17
51	Improving electrochemical nitrate reduction activity of layered perovskite oxide La2CuO4 via B-site doping. Catalysis Today, 2022, 402, 259-265.	4.4	17
52	NiS_x@MoS₂ heterostructure prepared by atomic layer deposition as high-performance hydrogen evolution reaction electrocatalysts in alkaline media. Journal of Materials Research, 2020, 35, 822-830.	2.6	15
53	A facile top-down approach for constructing perovskite oxide nanostructure with abundant oxygen defects as highly efficient water oxidation electrocatalyst. International Journal of Hydrogen Energy, 2020, 45, 22808-22816.	7.1	15
54	Structural, Chemical, and Electronic State on La_{0.7}Sr_{0.3}MnO₃ Dense Thin-Film Surfaces at High Temperature: Surface Segregation. ECS Transactions, 2010, 28, 235-240.	0.5	12

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55	Improving the activity and stability of Ni-based electrodes for solid oxide cells through surface engineering: Recent progress and future perspectives. Materials Reports Energy, 2021, 1, 100025.	3.2	11
56	Tailoring the wettability of nanocrystalline TiO2 films. Applied Surface Science, 2012, 258, 2266-2269.	6.1	9
57	Spinel/perovskite cobaltite nanocomposites synthesized by combinatorial pulsed laser deposition. CrystEngComm, 2016, 18, 7745-7752.	2.6	9
58	Tuning reaction pathways of peroxymonosulfate-based advanced oxidation process via defect engineering. Cell Reports Physical Science, 2021, 2, 100550.	5.6	9
59	Modulating Reaction Pathways on Perovskite Cobaltite Nanofibers through Excessive Surface Oxygen Defects for Efficient Water Oxidation. Energy & Fuels, 2021, 35, 13967-13974.	5.1	7
60	Etching characteristic for tracks of multicharged ions in polymer. Radiation Measurements, 2008, 43, S111-S115.	1.4	6
61	Anisotropic deformation of polystyrene particles by MeV Au ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 894-898.	1.4	6
62	Spectroscopic investigation of defects mediated oxidization of single-layer MoS2. Science China Technological Sciences, 2021, 64, 611-619.	4.0	6
63	Chemical, Electronic and Nanostructure Dynamics on Sr(Ti1-xFex)O3 Thin-Film Surfaces at High Temperatures. ECS Transactions, 2011, 35, 2409-2416.	0.5	5
64	Surface Chemistry and Non-Stoichiometry of Nd₂NiO₄₊ _{Î´} Epitaxial Thin Films with Different Orientation and Strain. ECS Transactions, 2013, 57, 1743-1752.	0.5	5
65	A semi-classical model for the charge exchange and energy loss of slow highly charged ions in ultrathin materials. Matter and Radiation at Extremes, 2019, 4, 054401.	3.9	5
66	Enhancing the non-enzymatic glucose detection performance of Ni(OH)2 nanosheets via defect engineering. Surfaces and Interfaces, 2021, 25, 101234.	3.0	5
67	Manipulating the Resistive Switching in Epitaxial SrCoO_{2.5} Thin-Film-Based Memristors by Strain Engineering. ACS Applied Electronic Materials, 2022, 4, 2729-2738.	4.3	5
68	The investigation of energy loss and damage in polycarbonate induced by MeV carbon clusters. Nuclear Instruments & Methods in Physics Research B, 2007, 262, 205-208.	1.4	3
69	Applications of Heavy Ion Irradiation in Photonic CrystalResearch. Journal of the Korean Physical Society, 2009, 55, 2708-2710.	0.7	3
70	STUDY ON THE MECHANISM OF VISIBLE ABSORPTION ENHANCEMENT FOR N⁺ IMPLANTED TiO₂ BY RAMAN SPECTROSCOPY. Surface Review and Letters, 2011, 18, 135-140.	1.1	1
71	Dependence of Defect Chemistry and Surface Composition on the Crystal Orientation of (La0.5Sr0.5)2CoO4 Dense Thin Films. ECS Transactions, 2013, 58, 265-274.	0.5	1
72	Damage cross-section of carbon cluster ions Cn+ (n= 1â€“5) collision with polycarbonate. Chemical Physics Letters, 2006, 433, 140-144.	2.6	0