Y G Du

List of Publications by Year
in descending order

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		94381	102432
103	4,865	37	66
papers	citations	h-index	g-index

107	107	107	7312
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	MoS₂/TiO₂ heterostructures as nonmetal plasmonic photocatalysts for highly efficient hydrogen evolution. Energy and Environmental Science, 2018, 11, 106-114.	15.6	326
2	Real-time mass spectrometric characterization of the solidâ€“electrolyte interphase of a lithium-ion battery. Nature Nanotechnology, 2020, 15, 224-230.	15.6	280
3	Size-dependent dynamic structures of supported gold nanoparticles in CO oxidation reaction condition. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7700-7705.	3.3	183
4	Stable, high-performance, dendrite-free, seawater-based aqueous batteries. Nature Communications, 2021, 12, 237.	5.8	174
5	S-Doped MoP Nanoporous Layer Toward High-Efficiency Hydrogen Evolution in pH-Universal Electrolyte. ACS Catalysis, 2019, 9, 651-659.	5.5	167
6	Perovskite Srâ€Doped LaCrO₃ as a New pâ€Type Transparent Conducting Oxide. Advanced Materials, 2015, 27, 5191-5195.	11.1	160
7	Towards data-driven next-generation transmission electron microscopy. Nature Materials, 2021, 20, 274-279.	13.3	130
8	Chemical Reactivity of Reduced TiO₂(110): The Dominant Role of Surface Defects in Oxygen Chemisorption. Journal of Physical Chemistry C, 2009, 113, 12407-12411.	1.5	127
9	Intrinsic Diffusion of Hydrogen on Rutile TiO₂(110). Journal of the American Chemical Society, 2008, 130, 9080-9088.	6.6	124
10	Electronic and transport properties of Li-doped NiO epitaxial thin films. Journal of Materials Chemistry C, 2018, 6, 2275-2282.	2.7	122
11	Tuning Bifunctional Oxygen Electrocatalysts by Changing the Aâ€Site Rareâ€Earth Element in Perovskite Nickelates. Advanced Functional Materials, 2018, 28, 1803712.	7.8	122
12	Transient Mobility of Oxygen Adatoms upon O2Dissociation on Reduced TiO2(110). Journal of Physical Chemistry C, 2008, 112, 2649-2653.	1.5	118
13	Fundamental Insight into Zr Modification of Li- and Mn-Rich Cathodes: Combined Transmission Electron Microscopy and Electrochemical Impedance Spectroscopy Study. Chemistry of Materials, 2018, 30, 2566-2573.	3.2	106
14	Stabilizing atomic Pt with trapped interstitial F in alloyed PtCo nanosheets for high-performance zinc-air batteries. Energy and Environmental Science, 2020, 13, 884-895.	15.6	99
15	Formation of O adatom pairs and charge transfer upon O2 dissociation on reduced TiO2(110). Physical Chemistry Chemical Physics, 2010, 12, 6337.	1.3	98
16	Overall Water Splitting with Room-Temperature Synthesized NiFe Oxyfluoride Nanoporous Films. ACS Catalysis, 2017, 7, 8406-8412.	5.5	91
17	Water as a Catalyst: Imaging Reactions of O₂ with Partially and Fully Hydroxylated TiO₂(110) Surfaces. Journal of Physical Chemistry C, 2009, 113, 1908-1916.	1.5	88
18	Boosting alkaline hydrogen evolution: the dominating role of interior modification in surface electrocatalysis. Energy and Environmental Science, 2020, 13, 3110-3118.	15.6	87

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19	Programmable Exposure of Pt Active Facets for Efficient Oxygen Reduction. Angewandte Chemie - International Edition, 2019, 58, 15848-15854.	7.2	81
20	Tuning the Electronic Structure of LaNiO₃ through Alloying with Strontium to Enhance Oxygen Evolution Activity. Advanced Science, 2019, 6, 1901073.	5.6	76
21	Imaging Consecutive Steps of O₂ Reaction with Hydroxylated TiO₂(110): Identification of HO₂ and Terminal OH Intermediates. Journal of Physical Chemistry C, 2009, 113, 666-671.	1.5	75
22	Hole-induced insulator-to-metal transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">L</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi mathvariant="normal">Cr</mml:mi><mml:msub><mml:mi	1.1	74
23	Direct Observation of Site-Specific Molecular Chemisorption of O₂ on TiO₂(110). Journal of Physical Chemistry Letters, 2010, 1, 3524-3529.	2.1	69
24	Electrochemically induced amorphous-to-rock-salt phase transformation in niobium oxide electrode for Li-ion batteries. Nature Materials, 2022, 21, 795-803.	13.3	69
25	Strain Effect on Oxygen Evolution Reaction Activity of Epitaxial NdNiO₃ Thin Films. ACS Applied Materials & Interfaces, 2019, 11, 12941-12947.	4.0	67
26	Electronic Structure and Band Alignment at the NiO and SrTiO₃ pâ€“n Heterojunctions. ACS Applied Materials & Interfaces, 2017, 9, 26549-26555.	4.0	65
27	Hydrogen reactivity on highly-hydroxylated TiO2(110) surfaces prepared viacarboxylic acid adsorption and photolysis. Physical Chemistry Chemical Physics, 2012, 14, 3066-3074.	1.3	61
28	Reversible nano-structuring of SrCrO3-Î´ through oxidation and reduction at low temperature. Nature Communications, 2014, 5, 4669.	5.8	60
29	Electronic Structure, Optical Properties, and Photoelectrochemical Activity of Sn-Doped Fe₂O₃ Thin Films. Journal of Physical Chemistry C, 2020, 124, 12548-12558.	1.5	56
30	Porous FeCo Glassy Alloy as Bifunctional Support for Highâ€Performance Znâ€Air Battery. Advanced Energy Materials, 2021, 11, 2002204.	10.2	55
31	Atomic Structure of the Anatase TiO₂(001) Surface. Journal of Physical Chemistry Letters, 2013, 4, 2958-2963.	2.1	49
32	Dynamic Lattice Oxygen Participation on Perovskite LaNiO₃ during Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2020, 124, 15386-15390.	1.5	49
33	The Impacts of Cation Stoichiometry and Substrate Surface Quality on Nucleation, Structure, Defect Formation, and Intermixing in Complex Oxide Heteroepitaxyâ€“LaCrO₃ on SrTiO₃(001). Advanced Functional Materials, 2013, 23, 2953-2963.	7.8	48
34	Reproducible tip fabrication and cleaning for UHV STM. Ultramicroscopy, 2008, 108, 873-877.	0.8	45
35	Photocatalytic behaviors of epitaxial BiVO4 (010) thin films. Applied Catalysis B: Environmental, 2019, 248, 115-119.	10.8	43
36	Anticorrelation between Surface and Subsurface Point Defects and the Impact on the Redox Chemistry of TiO₂(110). ChemPhysChem, 2015, 16, 313-321.	1.0	41

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37	The sensitive surface chemistry of Co-free, Ni-rich layered oxides: identifying experimental conditions that influence characterization results. Journal of Materials Chemistry A, 2020, 8, 17487-17497.	5.2	41
38	Rapid and flexible segmentation of electron microscopy data using few-shot machine learning. Npj Computational Materials, 2021, 7, .	3.5	37
39	Dynamic Atom Clusters on AuCu Nanoparticle Surface during CO Oxidation. Journal of the American Chemical Society, 2020, 142, 4022-4027.	6.6	36
40	Water Interactions with Terminal Hydroxyls on TiO₂(110). Journal of Physical Chemistry C, 2010, 114, 17080-17084.	1.5	34
41	Freestanding NiFe Oxyfluoride Holey Film with Ultrahigh Volumetric Capacitance for Flexible Asymmetric Supercapacitors. Small, 2018, 14, 1702295.	5.2	34
42	Direct Visualization of Li Dendrite Effect on LiCoO₂ Cathode by In Situ TEM. Small, 2018, 14, e1803108.	5.2	34
43	Hole-induced electronic and optical transitions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">L</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi mathvariant="normal">Fe</mml:mi><mml:msub><mml:mi mathvariant="normal">	0.9	33
44	Crystallographic dependence of photocatalytic activity of WO₃thin films prepared by molecular beam epitaxy. Physical Chemistry Chemical Physics, 2015, 17, 15119-15123.	1.3	32
45	The Restructuring-Induced CoO_x Catalyst for Electrochemical Water Splitting. Jacs Au, 2021, 1, 2216-2223.	3.6	32
46	Focused-ion-beam directed self-assembly of Cu2O islands on SrTiO3(100). Applied Physics Letters, 2004, 84, 5213-5215.	1.5	31
47	Understanding the Electronic Structure Evolution of Epitaxial LaNi_{1â€“x}Fe_xO₃ Thin Films for Water Oxidation. Nano Letters, 2021, 21, 8324-8331.	4.5	31
48	Strain Accommodation by Facile WO₆ Octahedral Distortion and Tilting during WO₃ Heteroepitaxy on SrTiO₃(001). ACS Applied Materials & Interfaces, 2014, 6, 14253-14258.	4.0	29
49	Competing Pathways for Nucleation of the Double Perovskite Structure in the Epitaxial Synthesis of La₂MnNiO₆. Chemistry of Materials, 2016, 28, 3814-3822.	3.2	29
50	Creation and Ordering of Oxygen Vacancies at WO_{3â^Î´} and Perovskite Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 17480-17486.	4.0	29
51	In-situ imaging of the nucleation and growth of epitaxial anatase TiO2(001) films on SrTiO3(001). Surface Science, 2012, 606, 1443-1449.	0.8	27
52	Linking surface chemistry to photovoltage in Sr-substituted LaFeO₃ for water oxidation. Journal of Materials Chemistry A, 2018, 6, 22170-22178.	5.2	27
53	Electron Transfer Governed Crystal Transformation of Tungsten Trioxide upon Li Ions Intercalation. ACS Applied Materials & Interfaces, 2016, 8, 24567-24572.	4.0	26
54	Iso-oriented monolayer Î±-MoO₃(010) films epitaxially grown on SrTiO₃(001). Nanoscale, 2016, 8, 3119-3124.	2.8	26

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55	The effects of core-level broadening in determining band alignment at the epitaxial SrTiO3(001)/p-Ge(001) heterojunction. Applied Physics Letters, 2017, 110, .	1.5	26
56	Holeâ€Trappingâ€Induced Stabilization of Ni^{4â€‰+} in SrNiO₃/LaFeO₃ Superlattices. Advanced Materials, 2020, 32, e2005003.	11.1	26
57	Quantifying small changes in uranium oxidation states using XPS of a shallow core level. Physical Chemistry Chemical Physics, 2017, 19, 30473-30480.	1.3	25
58	Argon Cluster Sputtering Source for ToF-SIMS Depth Profiling of Insulating Materials: High Sputter Rate and Accurate Interfacial Information. Journal of the American Society for Mass Spectrometry, 2015, 26, 1283-1290.	1.2	24
59	Inorganic tin aluminophosphate nanocomposite for reductive separation of pertechnetate. Environmental Science: Nano, 2016, 3, 1003-1013.	2.2	24
60	Brownmillerite phase formation and evolution in epitaxial strontium ferrite heterostructures. Applied Physics Letters, 2019, 114, .	1.5	24
61	Adsorption states and mobility of trimethylacetic acid molecules on reduced TiO2(110) surface. Physical Chemistry Chemical Physics, 2010, 12, 5986.	1.3	23
62	Measurement Error in Atomic-Scale Scanning Transmission Electron Microscopyâ€”Energy-Dispersive X-Ray Spectroscopy (STEM-EDS) Mapping of a Model Oxide Interface. Microscopy and Microanalysis, 2017, 23, 513-517.	0.2	22
63	Water-Processable P2-Na_{0.67}Ni_{0.22}Cu_{0.11}Mn_{0.56}Ti_{0.11}O₂ Cathode Material for Sodium Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A251-A257.	1.3	22
64	Layer-resolved band bending at the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>n</mml:mi><mml:mo>â^’</mml:mo><mml:mi>SrTi</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mn>001</mml:mn> interface. Physical Review Materials, 2018, 2, .	0.9	20
65	Strain-Driven Mn-Reorganization in Overlithiated Li_xMn₂O₄ Epitaxial Thin-Film Electrodes. ACS Applied Energy Materials, 2018, 1, 2526-2535.	2.5	18
66	Band alignment and electrocatalytic activity at the p-n La0.88Sr0.12FeO3/SrTiO3(001) heterojunction. Applied Physics Letters, 2018, 112, .	1.5	18
67	Manganese-calcium intermixing facilitates heteroepitaxial growth at the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif" overflow="scroll"><mml:mfenced open="(" close=")"><mml:mrow><mml:mn>10</mml:mn><mml:mover accent="false"><mml:mn>1</mml:mn><mml:mo>Â¯</mml:mo></mml:mover><mml:mn>4</mml:mn></mml:mrow></mml:mfenced> calcite-water interface. Chemical Geology, 2017, 470, 152-163.	1.4	17
68	Formation, Structural Variety, and Impact of Antiphase Boundaries on Li Diffusion in LiCoO₂ Thin-Film Cathodes. Journal of Physical Chemistry Letters, 2018, 9, 5515-5520.	2.1	17
69	N8 stabilized single-atom Pd for highly selective hydrogenation of acetylene. Journal of Catalysis, 2021, 395, 46-53.	3.1	16
70	Low-Dimensional Oxygen Vacancy Ordering and Diffusion in SrCrO_{3â^Î´}. Journal of Physical Chemistry Letters, 2017, 8, 1757-1763.	2.1	15
71	Surprising formation of quasi-stable Tc(<scp>vi</scp>) in high ionic strength alkaline media. Inorganic Chemistry Frontiers, 2018, 5, 2081-2091.	3.0	15
72	Electrically coupling complex oxides to semiconductors: A route to novel material functionalities. Journal of Materials Research, 2017, 32, 249-259.	1.2	14

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73	Impact of Srâ€Incorporation on Cr Oxidation and Water Dissociation in La_{(1â€“}_x₎Sr_xCrO₃. Advanced Materials Interfaces, 2018, 5, 1701363.	1.9	13
74	Negative impact of surface Ti3+ defects on the photocatalytic hydrogen evolution activity of SrTiO3. Applied Physics Letters, 2018, 112, .	1.5	13
75	Experimental determination of electron attenuation lengths in complex materials by means of epitaxial film growth: Advantages and challenges. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	13
76	Reflection high-energy electron diffraction beam-induced structural and property changes on WO3 thin films. Applied Physics Letters, 2014, 105, .	1.5	12
77	Oxidative Corrosion of the UO2 (001) Surface by Nonclassical Diffusion. Langmuir, 2017, 33, 13189-13196.	1.6	12
78	An all-perovskite p-n junction based on transparent conducting p-La1â^'xSrxCrO3 epitaxial layers. Applied Physics Letters, 2017, 111, .	1.5	12
79	Spontaneous phase segregation of Sr ₂ NiO ₃ and SrNi ₂ O ₃ during SrNiO ₃ heteroepitaxy. Science Advances, 2021, 7, .	4.7	12
80	Electronic and magnetic properties of epitaxial perovskite SrCrO₃(0â€‰0â€‰1). Journal of Physics Condensed Matter, 2015, 27, 245605.	0.7	11
81	Time- and strain-dependent nanoscale structural degradation in phase change epitaxial strontium ferrite films. Npj Materials Degradation, 2020, 4, .	2.6	11
82	Surface dissolution and amorphization of electrocatalysts during oxygen evolution reaction: Atomistic features and viewpoints. Materials Today, 2022, 58, 221-237.	8.3	11
83	Self-corrected sensors based on atomic absorption spectroscopy for atom flux measurements in molecular beam epitaxy. Applied Physics Letters, 2014, 104, .	1.5	10
84	Structural and electrical properties of single crystalline SrZrO3epitaxially grown on Ge (001). Journal of Applied Physics, 2017, 122, 084102.	1.1	10
85	Spectroscopic Characterization of Aqua [fac-Tc(CO)₃]⁺ Complexes at High Ionic Strength. Inorganic Chemistry, 2018, 57, 6903-6912.	1.9	10
86	Robust Atomic-Resolution Imaging of Lithium in Battery Materials by Center-of-Mass Scanning Transmission Electron Microscopy. ACS Nano, 2022, 16, 1358-1367.	7.3	10
87	Probing adsorbates on La1â^'x Sr x NiO3â^'Î´ surfaces under humid conditions: implications for the oxygen evolution reaction. Journal Physics D: Applied Physics, 2021, 54, 274003.	1.3	9
88	Chemical and electronic structure analysis of a SrTiO3 (001)/p-Ge (001) hydrogen evolution photocathode. MRS Communications, 2018, 8, 446-452.	0.8	8
89	Spontaneous redox continuum reveals sequestered technetium clusters and retarded mineral transformation of iron. Communications Chemistry, 2020, 3, .	2.0	8
90	Mg²⁺ Diffusion-Induced Structural and Property Evolution in Epitaxial Fe₃O₄ Thin Films. ACS Nano, 2020, 14, 14887-14894.	7.3	6

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91	Influence of strain on SrFeO3-Î´ oxidation, reduction, and water dissociation: Insights from ambient pressure X-ray photoelectron spectroscopy. Applied Surface Science, 2020, 527, 146919.	3.1	6
92	Redox-Based Electrochemical Affinity Sensor for Detection of Aqueous Pertechnetate Anion. ACS Sensors, 2020, 5, 674-685.	4.0	6
93	Electrochemical Utilization of Iron IV in the Li_{1.3}Fe_{0.4}Nb_{0.3}O₂ Disordered Rocksalt Cathode. Batteries and Supercaps, 2021, 4, 771-777.	2.4	6
94	Formation of single-phase BaO nanoclusters. Thin Solid Films, 2011, 519, 5335-5338.	0.8	5
95	Etalon-induced baseline drift and correction in atom flux sensors based on atomic absorption spectroscopy. Applied Physics Letters, 2014, 105, 163113.	1.5	5
96	InorganicBaâ€“Snnanocomposite materials for sulfate sequestration from complex aqueous solutions. Environmental Science: Nano, 2018, 5, 890-903.	2.2	5
97	Dominance of Interface Chemistry over the Bulk Properties in Determining the Electronic Structure of Epitaxial Metal/Perovskite Oxide Heterojunctions. Chemistry of Materials, 2015, 27, 4093-4098.	3.2	4
98	Tuning magnetic and optical properties through strain in epitaxial LaCrO3 thin films. Applied Physics Letters, 2021, 119, .	1.5	4
99	Spontaneous Lithiation of Binary Oxides during Epitaxial Growth on LiCoO₂. Nano Letters, 2022, 22, 5530-5537.	4.5	4
100	Three-Dimensional Mass Spectrometric Imaging of Biological Structures Using a Vacuum-Compatible Microfluidic Device. Analytical Chemistry, 2020, 92, 13785-13793.	3.2	3
101	Modulation of the electronic states of perovskite SrCrO3 thin films through protonation via low-energy hydrogen plasma implantation approaches. Frontiers of Physics, 2020, 15, 1.	2.4	2
102	Determining valence band offsets in heterojunctions using a single core-level x-ray photoelectron spectrum. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	2
103	Preface for the special topic collection honoring Dr. Scott Chambersâ€™ 70th birthday and his leadership in the science and technology of oxide thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	0