

Xingxu Yan

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1432986/publications.pdf>

Version: 2024-02-01

79
papers

5,177
citations

117625

34
h-index

88630

70
g-index

83
all docs

83
docs citations

83
times ranked

8433
citing authors

#	ARTICLE	IF	CITATIONS
1	Intercorrelated In-Plane and Out-of-Plane Ferroelectricity in Ultrathin Two-Dimensional Layered Semiconductor In ₂ Se ₃ . Nano Letters, 2018, 18, 1253-1258.	9.1	509
2	General synthesis of two-dimensional van der Waals heterostructure arrays. Nature, 2020, 579, 368-374.	27.8	393
3	Pyridinic-Nitrogen-Dominated Graphene Aerogels with Fe-N-C Coordination for Highly Efficient Oxygen Reduction Reaction. Advanced Functional Materials, 2016, 26, 5708-5717.	14.9	360
4	Atomically engineering activation sites onto metallic 1T-MoS ₂ catalysts for enhanced electrochemical hydrogen evolution. Nature Communications, 2019, 10, 982.	12.8	311
5	Controlled Synthesis of Lead-Free and Stable Perovskite Derivative Cs ₂ Sn ₆ Nanocrystals via a Facile Hot-Injection Process. Chemistry of Materials, 2016, 28, 8132-8140.	6.7	310
6	Rational Design of Graphene-Supported Single Atom Catalysts for Hydrogen Evolution Reaction. Advanced Energy Materials, 2019, 9, 1803689.	19.5	279
7	Stable iridium dinuclear heterogeneous catalysts supported on metal-oxide substrate for solar water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2902-2907.	7.1	229
8	High-Mobility Multilayered MoS ₂ Flakes with Low Contact Resistance Grown by Chemical Vapor Deposition. Advanced Materials, 2017, 29, 1604540.	21.0	214
9	Uniformity Is Key in Defining Structure-Function Relationships for Atomically Dispersed Metal Catalysts: The Case of Pt/CeO ₂ . Journal of the American Chemical Society, 2020, 142, 169-184.	13.7	170
10	High-order superlattices by rolling up van der Waals heterostructures. Nature, 2021, 591, 385-390.	27.8	163
11	Real-space charge-density imaging with sub-Ångström resolution by four-dimensional electron microscopy. Nature, 2019, 575, 480-484.	27.8	127
12	Dynamic evolution and reversibility of single-atom Ni(II) active site in 1T-MoS ₂ electrocatalysts for hydrogen evolution. Nature Communications, 2020, 11, 4114.	12.8	112
13	Single-defect phonons imaged by electron microscopy. Nature, 2021, 589, 65-69.	27.8	108
14	Size-Dependent Nickel-Based Electrocatalysts for Selective CO ₂ Reduction. Angewandte Chemie - International Edition, 2020, 59, 18572-18577.	13.8	100
15	Generating Electricity from Biofluid with a Nanowire-Based Biofuel Cell for Self-Powered Nanodevices. Advanced Materials, 2010, 22, 5388-5392.	21.0	99
16	Stacking-mode confined growth of 2H-MoTe ₂ /MoS ₂ bilayer heterostructures for UV-vis-IR photodetectors. Nano Energy, 2018, 49, 200-208.	16.0	96
17	Two-Dimensional Semiconductors Grown by Chemical Vapor Transport. Angewandte Chemie - International Edition, 2017, 56, 3611-3615.	13.8	92
18	Atomic interpretation of high activity on transition metal and nitrogen-doped carbon nanofibers for catalyzing oxygen reduction. Journal of Materials Chemistry A, 2017, 5, 3336-3345.	10.3	88

#	ARTICLE	IF	CITATIONS
19	Gate-Induced Interfacial Superconductivity in 1T-SnSe ₂ . Nano Letters, 2018, 18, 1410-1415.	9.1	81
20	High-density switchable skyrmion-like polar nanodomains integrated on silicon. Nature, 2022, 603, 63-67.	27.8	79
21	Revealing Surface Elemental Composition and Dynamic Processes Involved in Facet-Dependent Oxidation of Pt ₃ Co Nanoparticles via <i>in Situ</i> Transmission Electron Microscopy. Nano Letters, 2017, 17, 4683-4688.	9.1	71
22	Layer-Dependent Chemically Induced Phase Transition of Two-Dimensional MoS ₂ . Nano Letters, 2018, 18, 3435-3440.	9.1	69
23	End-On Bound Iridium Dinuclear Heterogeneous Catalysts on WO ₃ for Solar Water Oxidation. ACS Central Science, 2018, 4, 1166-1172.	11.3	69
24	Wafer-Scale High-Throughput Ordered Arrays of Si and Coaxial Si/SiGe Wires: Fabrication, Characterization, and Photovoltaic Application. ACS Nano, 2011, 5, 6629-6636.	14.6	67
25	Chiral molecular intercalation superlattices. Nature, 2022, 606, 902-908.	27.8	67
26	Anisotropic polarization-induced conductance at a ferroelectric-insulator interface. Nature Nanotechnology, 2018, 13, 1132-1136.	31.5	53
27	Fe-N-C Electrocatalysts™ Durability: Effects of Single Atoms™ Mobility and Clustering. ACS Catalysis, 2021, 11, 484-494.	11.2	53
28	Directly Probing the Local Coordination, Charge State, and Stability of Single Atom Catalysts by Advanced Electron Microscopy: A Review. Small, 2021, 17, e2006482.	10.0	49
29	Experimental observation of localized interfacial phonon modes. Nature Communications, 2021, 12, 6901.	12.8	46
30	Laser-Irradiated Holey Graphene-Supported Single-Atom Catalyst towards Hydrogen Evolution and Oxygen Reduction. Advanced Energy Materials, 2021, 11, 2101619.	19.5	43
31	Promotion of Ternary Pt-Sn-Ag Catalysts toward Ethanol Oxidation Reaction: Revealing Electronic and Structural Effects of Additive Metals. ACS Energy Letters, 2018, 3, 2550-2557.	17.4	41
32	Activating a Two-Dimensional PtSe ₂ Basal Plane for the Hydrogen Evolution Reaction through the Simultaneous Generation of Atomic Vacancies and Pt Clusters. Nano Letters, 2021, 21, 3857-3863.	9.1	40
33	Intrinsic Conductance of Domain Walls in BiFeO ₃ . Advanced Materials, 2019, 31, e1902099.	21.0	39
34	Controlled Synthesis, Structural Evolution, and Photoluminescence Properties of Nanoscale One-Dimensional Hierarchical ZnO/ZnS Heterostructures. Journal of Physical Chemistry C, 2011, 115, 1831-1837.	3.1	36
35	Direct observation of elemental fluctuation and oxygen octahedral distortion-dependent charge distribution in high entropy oxides. Nature Communications, 2022, 13, 2358.	12.8	35
36	Probing the light harvesting and charge rectification of bismuth nanoparticles behind the promoted photoreactivity onto Bi/BiOCl catalyst by (in-situ) electron microscopy. Applied Catalysis B: Environmental, 2017, 201, 495-502.	20.2	34

#	ARTICLE	IF	CITATIONS
37	Nanoscale imaging of phonon dynamics by electron microscopy. <i>Nature</i> , 2022, 606, 292-297.	27.8	34
38	Controllable Synthesis and Enhanced Electrocatalysis of Iron-based Catalysts Derived From Electrospun Nanofibers. <i>Small</i> , 2014, 10, 4072-4079.	10.0	31
39	PdCo bimetallic nano-electrocatalyst as effective air-cathode for aqueous metal-air batteries. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 5001-5011.	7.1	31
40	Control of Domain Structures in Multiferroic Thin Films through Defect Engineering. <i>Advanced Materials</i> , 2018, 30, e1802737.	21.0	31
41	Size-Dependent Nickel-Based Electrocatalysts for Selective CO ₂ Reduction. <i>Angewandte Chemie</i> , 2020, 132, 18731-18736.	2.0	30
42	Manipulating Coordination Structures of Mixed-Valence Copper Single Atoms on 1T-MoS ₂ for Efficient Hydrogen Evolution. <i>ACS Catalysis</i> , 2022, 12, 7687-7695.	11.2	26
43	Highly crystalline ReSe ₂ atomic layers synthesized by chemical vapor transport. <i>Informa-Åiily</i> , 2019, 1, 552-558.	17.3	24
44	Catalysts by pyrolysis: Direct observation of transformations during re-pyrolysis of transition metal-nitrogen-carbon materials leading to state-of-the-art platinum group metal-free electrocatalyst. <i>Materials Today</i> , 2022, 53, 58-70.	14.2	23
45	Discovery of a magnetic conductive interface in PbZr _{0.2} Ti _{0.8} O ₃ /SrTiO ₃ heterostructures. <i>Nature Communications</i> , 2018, 9, 685.	12.8	20
46	Observation of Strong Polarization Enhancement in Ferroelectric Tunnel Junctions. <i>Nano Letters</i> , 2019, 19, 6812-6818.	9.1	18
47	Solar-assisted co-electrolysis of glycerol and water for concurrent production of formic acid and hydrogen. <i>Journal of Materials Chemistry A</i> , 2021, 9, 19975-19983.	10.3	18
48	Unexpected Strong Thermally Induced Phonon Energy Shift for Mapping Local Temperature. <i>Nano Letters</i> , 2019, 19, 7494-7502.	9.1	17
49	Effective Electrochemical Modulation of SERS Intensity Assisted by Core-shell Nanoparticles. <i>Analytical Chemistry</i> , 2021, 93, 4441-4448.	6.5	17
50	Core-shell heterostructures of Î±-NaLuF ₄ :Yb/Er@NaLuF ₄ :Yb@MF ₂ (M = Ca, Sr, Ba) with remarkably enhanced upconversion luminescence. <i>Dalton Transactions</i> , 2016, 45, 11129-11136.	3.3	15
51	Direct observation of multiple rotational stacking faults coexisting in freestanding bilayer MoS ₂ . <i>Scientific Reports</i> , 2017, 7, 8323.	3.3	15
52	Capturing 3D atomic defects and phonon localization at the 2D heterostructure interface. <i>Science Advances</i> , 2021, 7, eabi6699.	10.3	13
53	Electrocatalysis enhancement of iron-based catalysts induced by synergy of methanol and oxygen-containing groups. <i>Nano Energy</i> , 2016, 21, 265-275.	16.0	12
54	Optimized electrospinning synthesis of iron-nitrogen-carbon nanofibers for high electrocatalysis of oxygen reduction in alkaline medium. <i>Nanotechnology</i> , 2015, 26, 165401.	2.6	11

#	ARTICLE	IF	CITATIONS
55	Two-Dimensional Semiconductors Grown by Chemical Vapor Transport. <i>Angewandte Chemie</i> , 2017, 129, 3665-3669.	2.0	9
56	Probing molecular vibrations by monochromated electron microscopy. <i>Trends in Chemistry</i> , 2022, 4, 76-90.	8.5	7
57	Direct observation of polarization-induced two-dimensional electron/hole gases at ferroelectric-insulator interface. <i>Npj Quantum Materials</i> , 2021, 6, .	5.2	6
58	Hierarchical ultrathin rolled-up Co(OH)(CO ₃) _{0.5} films assembled on Ni _{0.25} Co _{0.75} Sx nanosheets for enhanced supercapacitive performance. <i>RSC Advances</i> , 2014, 4, 57458-57462.	3.6	4
59	Improved Electrical Properties of Layer Structured La ₂ Ti _{1.96} V _{0.04} O ₇ Ceramics. <i>Journal of Electronic Materials</i> , 2020, 49, 2584-2595.	2.2	4
60	Controllable synthesis of porous iron-nitrogen-carbon nanofibers with enhanced oxygen reduction electrocatalysis in acidic medium. <i>RSC Advances</i> , 2015, 5, 50324-50327.	3.6	3
61	Origin of the Enhanced Piezoelectricity of Vanadium-Doped La ₂ Ti ₂ O ₇ Ceramics. <i>Journal of Physical Chemistry C</i> , 2021, 125, 26180-26187.	3.1	3
62	Bilayer MoS ₂ quantum dots with tunable magnetism and spin. <i>AIP Advances</i> , 2018, 8, 115103.	1.3	2
63	Probing Thermal-induced Phonon Energy Shift of SiC in Nanoscale by <i>in situ</i> Vibrational Spectroscopy. <i>Microscopy and Microanalysis</i> , 2019, 25, 622-623.	0.4	2
64	Mapping the Nanoscale Redshift of Optical Phonon Modes in a Strained Quantum Dot System. <i>Microscopy and Microanalysis</i> , 2019, 25, 626-627.	0.4	1
65	In Situ Observations of Abnormal Pore Size Changes of a Zirconium Based Metal-Organic Framework Using Atomic Resolution S/TEM and EELS. <i>Microscopy and Microanalysis</i> , 2019, 25, 1486-1487.	0.4	1
66	Anomalous Linear Layer-Dependent Blue Shift of Ultraviolet-Range Interband Transition in Two-Dimensional MoS ₂ . <i>Journal of Physical Chemistry C</i> , 2020, 124, 1609-1616.	3.1	1
67	Directly Probing Local Coordination, Charge State and Stability of Single Atom Catalysts. <i>Microscopy and Microanalysis</i> , 2020, 26, 2468-2469.	0.4	1
68	Phonon Reflections from Nanostructured Interfaces Imaged by Momentum-Averaged and Resolved Vibrational EELS. <i>Microscopy and Microanalysis</i> , 2021, 27, 1204-1206.	0.4	1
69	Surface reaction dependence of molecular beam epitaxy grown aluminum on various orientations of β -Ga ₂ O ₃ . <i>APL Materials</i> , 2022, 10, 011110.	5.1	1
70	Investigating Thermal Behavior of Surface Phonon in SiC by in-situ Vibrational Spectroscopy. <i>Microscopy and Microanalysis</i> , 2018, 24, 416-417.	0.4	0
71	Investigation of Surface and Bulk Vibrational Modes in SiC Polytypes using Spatially Resolved Monochromated HREELS. <i>Microscopy and Microanalysis</i> , 2018, 24, 462-463.	0.4	0
72	Transmission Electron Microscopy of Catalytic Nanomaterials at Atomic Resolution. <i>Microscopy and Microanalysis</i> , 2019, 25, 2054-2055.	0.4	0

#	ARTICLE	IF	CITATIONS
73	High Spatial Resolution Low-Voltage Electron Imaging and Spectroscopy of Two-Dimensional Materials and Semiconductor Nanostructures. <i>Microscopy and Microanalysis</i> , 2019, 25, 468-469.	0.4	0
74	Probing Local Vibration Modes at Single Planar Defects by Vibrational Spectroscopy. <i>Microscopy and Microanalysis</i> , 2020, 26, 952-953.	0.4	0
75	Anomalous Linear Layer-dependent Blue Shift of Interband Transition in Two-Dimensional Materials. <i>Microscopy and Microanalysis</i> , 2020, 26, 634-635.	0.4	0
76	Revealing Abnormal Phonon Polaritons Confined at the Edge of Curved Two-Dimensional Boron Nitride. <i>Microscopy and Microanalysis</i> , 2021, 27, 130-132.	0.4	0
77	Probing phonon propagation in materials by angle-resolved and angle-averaged vibrational EELS. <i>Microscopy and Microanalysis</i> , 2021, 27, 118-120.	0.4	0
78	High-Throughput Intelligent Analysis of High and Low-Loss EELS. <i>Microscopy and Microanalysis</i> , 2021, 27, 626-628.	0.4	0
79	Space- and Angle-Resolved Vibrational Spectroscopy to Probe the Local Phonon Modes at Planar Defects. <i>Microscopy and Microanalysis</i> , 2021, 27, 1190-1192.	0.4	0