

Xin Tan

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/2162418/xin-tan-publications-by-year.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

105
papers

3,055
citations

31
h-index

52
g-index

110
ext. papers

4,098
ext. citations

8.5
avg, IF

5.8
L-index

#	Paper	IF	Citations
105	Regulating electron transfer over asymmetric low-spin Co(II) for highly selective electrocatalysis. <i>Chem Catalysis</i> , 2022 ,		8
104	A single-Pt-atom-on-Ru-nanoparticle electrocatalyst for CO-resilient methanol oxidation. <i>Nature Catalysis</i> , 2022 , 5, 231-237	36.5	8
103	Modulating Pt-O-Pt atomic clusters with isolated cobalt atoms for enhanced hydrogen evolution catalysis.. <i>Nature Communications</i> , 2022 , 13, 2430	17.4	7
102	An Ultra-Long-Life Flexible Lithium-Sulfur Battery with Lithium Cloth Anode and Polysulfone-Functionalized Separator. <i>ACS Nano</i> , 2021 , 15, 1358-1369	16.7	19
101	Isolated copper-tin atomic interfaces tuning electrocatalytic CO conversion. <i>Nature Communications</i> , 2021 , 12, 1449	17.4	36
100	Template-Directed Rapid Synthesis of Pd-Based Ultrathin Porous Intermetallic Nanosheets for Efficient Oxygen Reduction. <i>Angewandte Chemie</i> , 2021 , 133, 11037-11044	3.6	4
99	Template-Directed Rapid Synthesis of Pd-Based Ultrathin Porous Intermetallic Nanosheets for Efficient Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 10942-10949	16.4	35
98	Defect Engineering in Graphene-Confined Single-Atom Iron Catalysts for Room-Temperature Methane Conversion. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 12628-12635	3.8	8
97	Theory-guided construction of electron-deficient sites via removal of lattice oxygen for the boosted electrocatalytic synthesis of ammonia. <i>Nano Research</i> , 2021 , 14, 1457-1464	10	2
96	Unveiling the role of carbon oxidation in irreversible degradation of atomically-dispersed FeN ₄ moieties for proton exchange membrane fuel cells. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 8721-8729 ¹³		2
95	Atomically Dispersed Indium Sites for Selective CO Electroreduction to Formic Acid. <i>ACS Nano</i> , 2021 , 15, 5671-5678	16.7	38
94	Intrinsic ORR Activity Enhancement of Pt Atomic Sites by Engineering the d-Band Center via Local Coordination Tuning. <i>Angewandte Chemie</i> , 2021 , 133, 22082-22088	3.6	0
93	Controllable CO electrocatalytic reduction via ferroelectric switching on single atom anchored InSe monolayer. <i>Nature Communications</i> , 2021 , 12, 5128	17.4	30
92	Intrinsic ORR Activity Enhancement of Pt Atomic Sites by Engineering the d-Band Center via Local Coordination Tuning. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 21911-21917	16.4	24
91	Sulfur-Dopant-Promoted Electroreduction of CO over Coordinatively Unsaturated Ni-N Moieties. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 23342-23348	16.4	14
90	New insights on the substantially reduced bandgap of bismuth layered perovskite oxide thin films. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 3161-3170	7.1	3
89	Phosphine vapor-assisted construction of heterostructured Ni ₂ P/NiTe ₂ catalysts for efficient hydrogen evolution. <i>Energy and Environmental Science</i> , 2020 , 13, 1799-1807	35.4	56

88	Implanting Ni-O-VOx sites into Cu-doped Ni for low-overpotential alkaline hydrogen evolution. <i>Nature Communications</i> , 2020 , 11, 2720	17.4	65
87	Vanadium Oxide Clusters Decorated Metallic Cobalt Catalyst for Active Alkaline Hydrogen Evolution. <i>Cell Reports Physical Science</i> , 2020 , 1, 100275	6.1	2
86	Stacking-Dependent Interlayer Magnetic Coupling in 2D CrI ₃ /CrGeTe ₃ Nanostructures for Spintronics. <i>ACS Applied Nano Materials</i> , 2020 , 3, 1282-1288	5.6	27
85	Facile CO Oxidation on Oxygen-functionalized MXenes via the Mars-van Krevelen Mechanism. <i>ChemCatChem</i> , 2020 , 12, 1007-1012	5.2	2
84	Tungsten Oxide/Carbide Surface Heterojunction Catalyst with High Hydrogen Evolution Activity. <i>ACS Energy Letters</i> , 2020 , 5, 3560-3568	20.1	27
83	Surface Reconstruction of Ultrathin Palladium Nanosheets during Electrocatalytic CO ₂ Reduction. <i>Angewandte Chemie</i> , 2020 , 132, 21677-21682	3.6	20
82	Surface Reconstruction of Ultrathin Palladium Nanosheets during Electrocatalytic CO Reduction. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 21493-21498	16.4	50
81	Confinement of Ionic Liquids at Single-Ni-Sites Boost Electroreduction of CO ₂ in Aqueous Electrolytes. <i>ACS Catalysis</i> , 2020 , 10, 13171-13178	13.1	27
80	Direct insights into the role of epoxy groups on cobalt sites for acidic H ₂ production. <i>Nature Communications</i> , 2020 , 11, 4181	17.4	73
79	A Janus MoSSe monolayer: a superior and strain-sensitive gas sensing material. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 1099-1106	13	106
78	Charge-controlled switchable H ₂ storage on conductive borophene nanosheet. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 20150-20157	6.7	17
77	N,P co-coordinated Fe species embedded in carbon hollow spheres for oxygen electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 14732-14742	13	50
76	Understanding the high activity of mildly reduced graphene oxide electrocatalysts in oxygen reduction to hydrogen peroxide. <i>Materials Horizons</i> , 2019 , 6, 1409-1415	14.4	30
75	Hydrophilic tannic acid-modified WS ₂ nanosheets for enhanced polysulfide conversion in aqueous media. <i>JPhys Energy</i> , 2019 , 1, 015005	4.9	
74	Computational Materials Science: Discovering and Accelerating Future Technologies. <i>Advanced Theory and Simulations</i> , 2019 , 2, 1900023	3.5	0
73	Isolated Diatomic Ni-Fe Metal-Nitrogen Sites for Synergistic Electroreduction of CO. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 6972-6976	16.4	406
72	Unraveling the Factors Behind the Efficiency of Hydrogen Evolution in Endohedrally Doped C ₆₀ Structures via Ab Initio Calculations and Insights from Machine Learning Models. <i>Advanced Theory and Simulations</i> , 2019 , 2, 1800202	3.5	3
71	Versatile electrocatalytic processes realized by Ni, Co and Fe alloyed core coordinated carbon shells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 12154-12165	13	22

70	Isolated Diatomic Ni-Fe Metal-Nitrogen Sites for Synergistic Electroreduction of CO ₂ . <i>Angewandte Chemie</i> , 2019 , 131, 7046-7050	3.6	42
69	Antipoisoning Nickel-Carbon Electrocatalyst for Practical Electrochemical CO ₂ Reduction to CO. <i>ACS Applied Energy Materials</i> , 2019 , 2, 8002-8009	6.1	26
68	Enhanced stability and stacking dependent magnetic/electronic properties of 2D monolayer FeTiO ₃ on a Ti ₂ CO ₂ substrate. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 15308-15314	7.1	2
67	Electrocatalytic Reduction of Carbon Dioxide to Methane on Single Transition Metal Atoms Supported on a Defective Boron Nitride Monolayer: First Principle Study. <i>Advanced Theory and Simulations</i> , 2019 , 2, 1800094	3.5	22
66	Processable Surface Modification of Nickel-Heteroatom (N, S) Bridge Sites for Promoted Alkaline Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 461-466	16.4	74
65	Oxygen Electrocatalysis at Mn-O -C Hybrid Heterojunction: An Electronic Synergy or Cooperative Catalysis?. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 706-713	9.5	6
64	Synthesis, optical properties and theoretical modelling of discrete emitting states in doped silicon nanocrystals for bioimaging. <i>Nanoscale</i> , 2018 , 10, 15600-15607	7.7	10
63	Processable Surface Modification of Nickel-Heteroatom (N, S) Bridge Sites for Promoted Alkaline Hydrogen Evolution. <i>Angewandte Chemie</i> , 2018 , 131, 471	3.6	4
62	Electroreduction of CO ₂ to CO on a Mesoporous Carbon Catalyst with Progressively Removed Nitrogen Moieties. <i>ACS Energy Letters</i> , 2018 , 3, 2292-2298	20.1	78
61	Fermi Level Determination for Charged Systems via Recursive Density of States Integration. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 4014-4019	6.4	1
60	Sc and Nb dopants in SrCoO ₃ modulate electronic and vacancy structures for improved water splitting and SOFC cathodes. <i>Energy Storage Materials</i> , 2017 , 9, 229-234	19.4	13
59	On the mechanism of gas adsorption for pristine, defective and functionalized graphene. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 6051-6056	3.6	51
58	Light, Catalyst, Activation: Boosting Catalytic Oxygen Activation Using a Light Pretreatment Approach. <i>ACS Catalysis</i> , 2017 , 7, 3644-3653	13.1	17
57	Electrocatalysts: In Operando Self-Healing of Perovskite Electrocatalysts: A Case Study of SrCoO ₃ for the Oxygen Evolution Reaction (Part. Part. Syst. Charact. 4/2017). <i>Particle and Particle Systems Characterization</i> , 2017 , 34,	3.1	1
56	The origin of low workfunctions in OH terminated MXenes. <i>Nanoscale</i> , 2017 , 9, 7016-7020	7.7	35
55	Borophene as a Promising Material for Charge-Modulated Switchable CO Capture. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 19825-19830	9.5	62
54	The controlled disassembly of mesostructured perovskites as an avenue to fabricating high performance nanohybrid catalysts. <i>Nature Communications</i> , 2017 , 8, 15553	17.4	52
53	In Operando Self-Healing of Perovskite Electrocatalysts: A Case Study of SrCoO ₃ for the Oxygen Evolution Reaction. <i>Particle and Particle Systems Characterization</i> , 2017 , 34, 1600280	3.1	9

52	Computational design of two-dimensional nanomaterials for charge modulated CO ₂ /H ₂ capture and/or storage. <i>Energy Storage Materials</i> , 2017 , 8, 169-183	19.4	21
51	Charge-modulated CO ₂ capture. <i>Current Opinion in Electrochemistry</i> , 2017 , 4, 118-123	7.2	6
50	Nitrogen Doped Carbon Nanosheets Coupled Nickel-Carbon Pyramid Arrays Toward Efficient Evolution of Hydrogen. <i>Advanced Sustainable Systems</i> , 2017 , 1, 1700032	5.9	9
49	Hexagonal honeycomb silicon: Silicene 2017 , 171-188		
48	Hexagonal honeycomb silicon: Silicene. <i>Series in Materials Science and Engineering</i> , 2017 , 171-188		
47	p-Doped Graphene/Graphitic Carbon Nitride Hybrid Electrocatalysts: Unraveling Charge Transfer Mechanisms for Enhanced Hydrogen Evolution Reaction Performance. <i>ACS Catalysis</i> , 2016 , 6, 7071-7077 ^{13.1}	13.1	53
46	Formation and Migration of Oxygen Vacancies in SrCoO ₃ and Their Effect on Oxygen Evolution Reactions. <i>ACS Catalysis</i> , 2016 , 6, 5565-5570	13.1	66
45	Interfacing BiVO with Reduced Graphene Oxide for Enhanced Photoactivity: A Tale of Facet Dependence of Electron Shuttling. <i>Small</i> , 2016 , 12, 5295-5302	11	56
44	Conductive Boron-Doped Graphene as an Ideal Material for Electrocatalytically Switchable and High-Capacity Hydrogen Storage. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 32815-32822	9.5	40
43	Charge-modulated permeability and selectivity in graphdiyne for hydrogen purification. <i>Molecular Simulation</i> , 2016 , 42, 573-579	2	18
42	Materials design for electrocatalytic carbon capture. <i>APL Materials</i> , 2016 , 4, 053202	5.7	18
41	RhNi nanocatalyst: Spontaneous alloying and high activity for hydrogen generation from hydrous hydrazine. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 6362-6368	6.7	23
40	Mobile Polaronic States in BiMoO ₃ : An ab Initio Investigation of the Role of Oxygen Vacancies and Alkali Ions. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 10911-7	9.5	40
39	First-Principle Framework for Total Charging Energies in Electrocatalytic Materials and Charge-Responsive Molecular Binding at Gas-Surface Interfaces. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 10897-903	9.5	16
38	Hexagonal boron nitride and graphene in-plane heterostructures: An experimentally feasible approach to charge-induced switchable CO ₂ capture. <i>Chemical Physics</i> , 2016 , 478, 139-144	2.3	21
37	Photocatalysis: Interfacing BiVO ₄ with Reduced Graphene Oxide for Enhanced Photoactivity: A Tale of Facet Dependence of Electron Shuttling (Small 38/2016). <i>Small</i> , 2016 , 12, 5232-5232	11	
36	Structural and Electronic Properties of Layered Arsenic and Antimony Arsenide. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 6918-6922	3.8	184
35	Charge Modulation in Graphitic Carbon Nitride as a Switchable Approach to High-Capacity Hydrogen Storage. <i>ChemSusChem</i> , 2015 , 8, 3626-31	8.3	27

34	Encapsulated Silicene: A Robust Large-Gap Topological Insulator. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 19226-33	9.5	28
33	Layered Graphene-Hexagonal BN Nanocomposites: Experimentally Feasible Approach to Charge-Induced Switchable CO ₂ Capture. <i>ChemSusChem</i> , 2015 , 8, 2987-93	8.3	37
32	Conductive Graphitic Carbon Nitride as an Ideal Material for Electrocatalytically Switchable CO ₂ Capture. <i>Scientific Reports</i> , 2015 , 5, 17636	4.9	48
31	Tetragonal bismuth bilayer: a stable and robust quantum spin hall insulator. <i>2D Materials</i> , 2015 , 2, 045019	4.9	29
30	Metallic BSi ₃ Silicene and Its One-Dimensional Derivatives: Unusual Nanomaterials with Planar Aromatic D _{6h} Six-Membered Silicon Rings. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 25825-25835	3.8	31
29	Metallic BSi ₃ Silicene: A Promising High Capacity Anode Material for Lithium-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 25836-25843	3.8	52
28	With the same Clar formulas, do the two-dimensional sandwich nanostructures X-Cr-X (X = C ₄ H, NC ₃ and BC ₃) behave similarly?. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 6002-11	3.6	10
27	Tuning electronic and optical properties of MoS ₂ monolayer via molecular charge transfer. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 16892-16897	13	123
26	Regioselective Oxidation of Strained Graphene for Controllable Synthesis of Nanoribbons. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 19160-19166	3.8	4
25	GROWTH MECHANISM OF RING SHAPED NANOSTRUCTURES SELF-ASSEMBLY UPON DROPLET EPITAXY. <i>Surface Review and Letters</i> , 2012 , 19, 1250029	1.1	1
24	Molecular dynamics study of temperature-dependent ripples in monolayer and bilayer graphene on 6H-BiC surfaces. <i>Chinese Physics B</i> , 2012 , 21, 066803	1.2	2
23	First-principles calculations of surfactant-assisted growth of polar CaO(111) oxide film: The case of water-based surfactant. <i>Physical Review B</i> , 2012 , 86,	3.3	2
22	Thermodynamic stability of quantum dots on strained substrates. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2011 , 43, 1755-1758	3	1
21	Temperature-dependent surface alloying in Au/Ni (110). <i>Journal of Alloys and Compounds</i> , 2009 , 467, 428-433	5.7	2
20	Supramolecular Nanowires Self-Assembly on Stepped Ag(110) Surface. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 19926-19929	3.8	4
19	Giant Magneto-Optical Kerr Effects in Ferromagnetic Perovskite BiNiO ₃ with Half-Metallic State. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 16638-16642	3.8	8
18	Catalytic Bond-Breaking Selectivity in the Ethylene Decomposition on Ni Surfaces: Kinetic Monte Carlo Simulations. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 4219-4225	3.8	5
17	First-principles study of structural, electronic, and multiferroic properties in BiCoO ₃ . <i>Journal of Chemical Physics</i> , 2007 , 126, 154708	3.9	52

16	First-principles study for the atomic structures and electronic properties of PbTiO ₃ oxygen-vacancies (001) surface. <i>Surface Science</i> , 2007 , 601, 5412-5418	1.8	7
15	Ab initio study of ruffled relaxation and core-level shift of barium titanate surface. <i>Surface Science</i> , 2007 , 601, 1345-1350	1.8	12
14	Roughing titanium quantum wire on patterned monohydride diamond (001) surface. <i>Journal of Chemical Physics</i> , 2007 , 126, 184705	3.9	4
13	First-principles study of pressure-induced metal-insulator transition in BiNiO ₃ . <i>Applied Physics Letters</i> , 2007 , 91, 101901	3.4	26
12	Surface energy and shrinkage of a nanocavity. <i>Applied Physics Letters</i> , 2006 , 89, 183104	3.4	27
11	Ordering Fe nanowire on stepped Cu (111) surface. <i>Applied Physics Letters</i> , 2006 , 88, 263116	3.4	14
10	Thermodynamic model of the surface energy of nanocrystals. <i>Physical Review B</i> , 2006 , 74,	3.3	83
9	Solid solubility limit in alloying nanoparticles. <i>Nanotechnology</i> , 2006 , 17, 4257-62	3.4	36
8	Physical and chemical origin of size-dependent spontaneous interfacial alloying of core-shell nanostructures. <i>Chemical Physics Letters</i> , 2006 , 420, 65-70	2.5	33
7	Charge-induced transition between miscible and immiscible in nanometer-sized alloying particles. <i>Chemical Physics Letters</i> , 2006 , 423, 143-146	2.5	1
6	Dependence of morphology of pulsed-laser deposited coatings on temperature: a kinetic Monte Carlo simulation. <i>Surface and Coatings Technology</i> , 2005 , 197, 288-293	4.4	17
5	Pulsed-laser deposition of polycrystalline Ni films: A three-dimensional kinetic Monte Carlo simulation. <i>Surface Science</i> , 2005 , 588, 175-183	1.8	15
4	COMPARISON OF ISLAND FORMATION BETWEEN PULSED LASER DEPOSITION AND MOLECULAR BEAM EPITAXY: A KINETIC MONTE CARLO SIMULATION. <i>Surface Review and Letters</i> , 2005 , 12, 611-617	1.1	1
3	Plate model to evaluate interfacial adhesion of anisotropy thin film in CSN test. <i>Journal of Materials Science</i> , 2004 , 39, 4013-4016	4.3	2
2	Autocatalytic Surface Reduction-Assisted Synthesis of PtW Ultrathin Alloy Nanowires for Highly Efficient Hydrogen Evolution Reaction. <i>Advanced Energy Materials</i> , 2103943	21.8	6
1	Activating Inert MXenes for Hydrogen Evolution Reaction via Anchored Metal Centers. <i>Advanced Theory and Simulations</i> , 2100383	3.5	