

Iradwikanari Waluyo

List of Publications by Year in descending order

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95
papers

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136950

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docs citations

96
times ranked

5362
citing authors

#	ARTICLE	IF	CITATIONS
1	Exsolution Synthesis of Nanocomposite Perovskites with Tunable Electrical and Magnetic Properties. <i>Advanced Functional Materials</i> , 2022, 32, 2108005.	14.9	20
2	Water Formation Reaction under Interfacial Confinement: Al _{0.25} Si _{0.75} O ₂ on O-Ru(0001). <i>Nanomaterials</i> , 2022, 12, 183.	4.1	2
3	Thermally-driven reactivity of Li _{0.35} La _{0.55} TiO ₃ solid electrolyte with LiCoO ₂ cathode. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3485-3494.	10.3	6
4	Avoiding CO ₂ Improves Thermal Stability at the Interface of Li ₇ La ₃ Zr ₂ O ₁₂ Electrolyte with Layered Oxide Cathodes. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	17
5	Investigating the Elusive Nature of Atomic O from CO ₂ Dissociation on Pd(111): The Role of Surface Hydrogen. <i>Journal of Physical Chemistry C</i> , 2022, 126, 7870-7879.	3.1	1
6	Additive engineering for robust interphases to stabilize high-Ni layered structures at ultra-high voltage of 4.8â€‰V. <i>Nature Energy</i> , 2022, 7, 484-494.	39.5	138
7	Strain-Dependent Surface Defect Equilibria of Mixed Ionic-Electronic Conducting Perovskites. <i>Chemistry of Materials</i> , 2022, 34, 5138-5150.	6.7	7
8	Elucidating CO Oxidation Pathways on Rh Atoms and Clusters on the â€œCu ₂ O/Cu(111) Surface. <i>Journal of Physical Chemistry C</i> , 2022, 126, 11091-11102.	3.1	1
9	Unraveling the role of tungsten as a minor alloying element in the oxidation NiCr alloys. <i>Npj Materials Degradation</i> , 2022, 6, .	5.8	5
10	The Role of Electron Localization in Covalency and Electrochemical Properties of Lithiumâ€œon Battery Cathode Materials. <i>Advanced Functional Materials</i> , 2021, 31, 2001633.	14.9	21
11	Designing perovskite catalysts for controlled active-site exsolution in the microwave dry reforming of methane. <i>Applied Catalysis B: Environmental</i> , 2021, 284, 119711.	20.2	37
12	In situ ambient pressure XPS study of Pt/Cu(111) single-atom alloy in catalytically relevant reaction conditions. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 194004.	2.8	12
13	Enhanced Catalysis under 2D Silica: A CO Oxidation Study. <i>Angewandte Chemie</i> , 2021, 133, 10983-10989.	2.0	1
14	Enhanced Catalysis under 2D Silica: A CO Oxidation Study. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 10888-10894.	13.8	12
15	Thermally Aged Liâ€œMnâ€œO Cathode with Stabilized Hybrid Cation and Anion Redox. <i>Nano Letters</i> , 2021, 21, 4176-4184.	9.1	6
16	Modification of the Coordination Environment of Active Sites on MoC for Highâ€œEfficiency CH ₄ Production. <i>Advanced Energy Materials</i> , 2021, 11, 2100044.	19.5	21
17	Tuning Point Defects by Elastic Strain Modulates Nanoparticle Exsolution on Perovskite Oxides. <i>Chemistry of Materials</i> , 2021, 33, 5021-5034.	6.7	36
18	Microscopic relaxation channels in materials for superconducting qubits. <i>Communications Materials</i> , 2021, 2, .	6.9	31

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19	Xenon Trapping in Metal-Supported Silica Nanocages. <i>Small</i> , 2021, 17, 2103661.	10.0	2
20	Adsorption and activation of CO ₂ on Pt/CeO _x /TiO ₂ (110): Role of the Pt-CeO _x interface. <i>Surface Science</i> , 2021, 710, 121852.	1.9	5
21	Reusing Face Covering Masks: Probing the Impact of Heat Treatment. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 13545-13558.	6.7	8
22	Local Modulation of Single-Atomic Mn Sites for Enhanced Ambient Ammonia Electrosynthesis. <i>ACS Catalysis</i> , 2021, 11, 509-516.	11.2	93
23	Stabilizing electrode-electrolyte interfaces to realize high-voltage Li LiCoO ₂ batteries by a sulfonamide-based electrolyte. <i>Energy and Environmental Science</i> , 2021, 14, 6030-6040.	30.8	84
24	Xenon Trapping in Metal-Supported Silica Nanocages (<i>Small</i> 39/2021). <i>Small</i> , 2021, 17, 2170204.	10.0	0
25	Interface Sensitivity in Electron/Ion Yield X-ray Absorption Spectroscopy: The TiO ₂ -H ₂ O Interface. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 10212-10217.	4.6	17
26	Structure and Chemical State of Cesium on Well-Defined Cu(111) and Cu ₂ O/Cu(111) Surfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3107-3121.	3.1	16
27	Distinguishing electronic contributions of surface and sub-surface transition metal atoms in Ti-based MXenes. <i>2D Materials</i> , 2020, 7, 025015.	4.4	31
28	Catalytic Oxidation of CO on a Curved Pt(111) Surface: Simultaneous Ignition at All Facets through a Transient CO-O Complex**. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 20037-20043.	13.8	13
29	Stabilized Co-Free Li-Rich Oxide Cathode Particles with An Artificial Surface Prereconstruction. <i>Advanced Energy Materials</i> , 2020, 10, 2001120.	19.5	74
30	Nucleation and Initial Stages of Growth during the Atomic Layer Deposition of Titanium Oxide on Mesoporous Silica. <i>Nano Letters</i> , 2020, 20, 6884-6890.	9.1	23
31	Bulk vs Intrinsic Activity of NiFeO _x Electrocatalysts in the Oxygen Evolution Reaction: The Influence of Catalyst Loading, Morphology, and Support Material. <i>ACS Catalysis</i> , 2020, 10, 11768-11778.	11.2	23
32	Thermally Driven Interfacial Degradation between Li ₇ La ₃ Zr ₂ O ₁₂ Electrolyte and LiNi _{0.6} Mn _{0.2} Co _{0.2} O ₂ Cathode. <i>Chemistry of Materials</i> , 2020, 32, 9531-9541.	6.7	27
33	A Surface Se-Substituted LiCo[O ₂] _x Se _y Cathode with Ultrastable High-Voltage Cycling in Pouch Full-Cells. <i>Advanced Materials</i> , 2020, 32, e2005182.	21.0	110
34	Gradient-morph LiCoO ₂ single crystals with stabilized energy density above 3400 W h L ⁻¹ . <i>Energy and Environmental Science</i> , 2020, 13, 1865-1878.	30.8	118
35	Protonic solid-state electrochemical synapse for physical neural networks. <i>Nature Communications</i> , 2020, 11, 3134.	12.8	82
36	Accelerated Cu ₂ O Reduction by Single Pt Atoms at the Metal-Oxide Interface. <i>ACS Catalysis</i> , 2020, 10, 4215-4226.	11.2	34

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37	Multimodal Synchrotron Approach: Research Needs and Scientific Vision. Synchrotron Radiation News, 2020, 33, 44-47.	0.8	3
38	Interfacial engineering for stabilizing polymer electrolytes with 4V cathodes in lithium metal batteries at elevated temperature. Nano Energy, 2020, 72, 104655.	16.0	68
39	Bi-directional tuning of thermal transport in SrCoO _x with electrochemically induced phase transitions. Nature Materials, 2020, 19, 655-662.	27.5	88
40	Morphology and chemical behavior of model CsO _x /Cu ₂ O/Cu(111) nanocatalysts for methanol synthesis: Reaction with CO ₂ and H ₂ . Journal of Chemical Physics, 2020, 152, 044701.	3.0	8
41	CO Oxidation Mechanisms on CoO _x -Pt Thin Films. Journal of the American Chemical Society, 2020, 142, 8312-8322.	13.7	39
42	Ultrafine CoO nanoparticles as an efficient cocatalyst for enhanced photocatalytic hydrogen evolution. Nanoscale, 2019, 11, 15633-15640.	5.6	44
43	Threshold catalytic onset of carbon formation on CeO ₂ during CO ₂ electrolysis: mechanism and inhibition. Journal of Materials Chemistry A, 2019, 7, 15233-15243.	10.3	19
44	Wet Chemical Growth and Thermocatalytic Activity of Cu-Based Nanoparticles Supported on TiO ₂ Nanoparticles/HOPG: In Situ Ambient Pressure XPS Study of the CO ₂ Hydrogenation Reaction. ACS Catalysis, 2019, 9, 6783-6802.	11.2	62
45	Improving the Electrochemical Performance and Structural Stability of the LiNi _{0.8} Co _{0.15} Al _{0.05} O ₂ Cathode Material at High-Voltage Charging through Ti Substitution. ACS Applied Materials & Interfaces, 2019, 11, 23213-23221.	8.0	57
46	Edge-Enhanced Oxygen Evolution Reactivity at Ultrathin, Au-Supported Fe ₂ O ₃ Electro-catalysts. ACS Catalysis, 2019, 9, 5375-5382.	11.2	46
47	Ultrathin Amorphous Titania on Nanowires: Optimization of Conformal Growth and Elucidation of Atomic-Scale Motifs. Nano Letters, 2019, 19, 3457-3463.	9.1	14
48	Synthesis and Characterization of a Molecularly Designed High-Performance Organodisulfide as Cathode Material for Lithium Batteries. Advanced Energy Materials, 2019, 9, 1900705.	19.5	34
49	Highly Active and Stable Carbon Nanosheets Supported Iron Oxide for Fischer-Tropsch to Olefins Synthesis. ChemCatChem, 2019, 11, 1625-1632.	3.7	8
50	Understanding three-dimensionally interconnected porous oxide-derived copper electrocatalyst for selective carbon dioxide reduction. Journal of Materials Chemistry A, 2019, 7, 27576-27584.	10.3	21
51	Gradient Li-rich oxide cathode particles immunized against oxygen release by a molten salt treatment. Nature Energy, 2019, 4, 1049-1058.	39.5	248
52	Subtle and reversible interactions of ambient pressure H ₂ with Pt/Cu(111) single-atom alloy surfaces. Surface Science, 2019, 679, 207-213.	1.9	17
53	Potassium-Promoted Reduction of Cu ₂ O/Cu(111) by CO. Journal of Physical Chemistry C, 2019, 123, 8057-8066.	3.1	20
54	Hydration of gadolinium oxide ($Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 87 Td (xmlns:mml="http://www.w3.org/1998/Math/M$ its effect on voltage-induced Co oxidation in a $PtCoO_x$. Physical Review Materials, 2019, 3	2.4	20

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55	<i>In Situ</i> Characterization of Mesoporous Co/CeO ₂ Catalysts for the High-Temperature Water-Gas Shift. <i>Journal of Physical Chemistry C</i> , 2018, 122, 8998-9008.	3.1	28
56	Enhanced Stability of Pt-Cu Single-Atom Alloy Catalysts: In Situ Characterization of the Pt/Cu(111) Surface in an Ambient Pressure of CO. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4488-4495.	3.1	68
57	Enhanced, robust light-driven H ₂ generation by gallium-doped titania nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 2104-2112.	2.8	23
58	Surface Defect Chemistry and Electronic Structure of Pr _{0.1} Ce _{0.9} O ₂ Revealed in Operando. <i>Chemistry of Materials</i> , 2018, 30, 2600-2606.	6.7	24
59	Hydrogenation of CO ₂ on ZnO/Cu(100) and ZnO/Cu(111) Catalysts: Role of Copper Structure and Metal-Oxide Interface in Methanol Synthesis. <i>Journal of Physical Chemistry B</i> , 2018, 122, 794-800.	2.6	129
60	Investigation of Water Dissociation and Surface Hydroxyl Stability on Pure and Ni-Modified CoOOH by Ambient Pressure Photoelectron Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2018, 122, 810-817.	2.6	18
61	Deconvolution of octahedral Pt ₃ Ni nanoparticle growth pathway from in situ characterizations. <i>Nature Communications</i> , 2018, 9, 4485.	12.8	37
62	Structural and chemical state of doped and impregnated mesoporous Ni/CeO ₂ catalysts for the water-gas shift. <i>Applied Catalysis A: General</i> , 2018, 567, 1-11.	4.3	10
63	Structure, Chemistry, and Charge Transfer Resistance of the Interface between Li ₇ La ₃ Zr ₂ O ₁₂ Electrolyte and LiCoO ₂ Cathode. <i>Chemistry of Materials</i> , 2018, 30, 6259-6276.	6.7	125
64	Imaging the ordering of a weakly adsorbed two-dimensional condensate: ambient-pressure microscopy and spectroscopy of CO ₂ molecules on rutile TiO ₂ (110). <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13122-13126.	2.8	9
65	Enhancement in Oxygen Reduction Reaction Activity of Nitrogen-Doped Carbon Nanostructures in Acidic Media through Chloride Ion Exposure. <i>ChemElectroChem</i> , 2018, 5, 1966-1975.	3.4	16
66	Strongly correlated perovskite lithium ion shuttles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 9672-9677.	7.1	55
67	Spectroscopic Identification of Surface Intermediates in the Decomposition of Methylamine on Ru(001). <i>Journal of Physical Chemistry C</i> , 2017, 121, 9424-9432.	3.1	2
68	Interfaces in heterogeneous catalytic reactions: Ambient pressure XPS as a tool to unravel surface chemistry. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2017, 221, 28-43.	1.7	41
69	Cu supported on mesoporous ceria: water gas shift activity at low Cu loadings through metal-support interactions. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 17708-17717.	2.8	25
70	New In-Situ and Operando Facilities for Catalysis Science at NSLS-II: The Deployment of Real-Time, Chemical, and Structure-Sensitive X-ray Probes. <i>Synchrotron Radiation News</i> , 2017, 30, 30-37.	0.8	28
71	Inverse Catalysts for CO Oxidation: Enhanced Oxide-Metal Interactions in MgO/Au(111), CeO ₂ /Au(111), and TiO ₂ /Au(111). <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 10783-10791.	6.7	32
72	Energy Level Shifts at the Silica/Ru(0001) Heterojunction Driven by Surface and Interface Dipoles. <i>Topics in Catalysis</i> , 2017, 60, 481-491.	2.8	32

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73	Studying two-dimensional zeolites with the tools of surface science: MFI nanosheets on Au(111). <i>Catalysis Today</i> , 2017, 280, 283-288.	4.4	11
74	Dry Reforming of Methane on a Highly Active Ni/CeO ₂ Catalyst: Effects of Metal-Support Interactions on C-H Bond Breaking. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 7455-7459.	13.8	276
75	Dry Reforming of Methane on a Highly Active Ni/CeO ₂ Catalyst: Effects of Metal-Support Interactions on C-H Bond Breaking. <i>Angewandte Chemie</i> , 2016, 128, 7581-7585.	2.0	35
76	Oxidation and Reduction under Cover: Chemistry at the Confined Space between Ultrathin Nanoporous Silicates and Ru(0001). <i>Journal of Physical Chemistry C</i> , 2016, 120, 8240-8245.	3.1	44
77	Ambient pressure XPS and IRRAS investigation of ethanol steam reforming on Ni/CeO ₂ (111) catalysts: an in situ study of C-C and O-H bond scission. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 16621-16628.	2.8	83
78	Hydrogenation and dehydrogenation reactions of C ₂ H _x moieties on the Ru(001) surface. <i>Surface Science</i> , 2016, 650, 144-148.	1.9	3
79	Hydrogenation of CO ₂ to Methanol on CeO _x /Cu(111) and ZnO/Cu(111) Catalysts: Role of the Metal-Oxide Interface and Importance of Ce ³⁺ Sites. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1778-1784.	3.1	156
80	Long-range ion-water and ion-ion interactions in aqueous solutions. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 8427-8430.	2.8	15
81	Spectroscopic characterization of C ₂ H _x intermediates in the dissociation of vinyl iodide on Pt(111). <i>Surface Science</i> , 2015, 637-638, 29-34.	1.9	9
82	Simultaneous Monitoring of Surface and Gas Phase Species during Hydrogenation of Acetylene over Pt(111) by Polarization-Dependent Infrared Spectroscopy. <i>ACS Catalysis</i> , 2015, 5, 4725-4733.	11.2	25
83	Adsorbate-driven morphological changes on Cu(111) nano-pits. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 3032-3038.	2.8	8
84	A different view of structure-making and structure-breaking in alkali halide aqueous solutions through x-ray absorption spectroscopy. <i>Journal of Chemical Physics</i> , 2014, 140, 244506.	3.0	70
85	Observation of Tunneling in the Hydrogenation of Atomic Nitrogen on the Ru(001) Surface to Form NH. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 3779-3786.	4.6	17
86	Spectroscopic Identification of Surface Intermediates in the Dehydrogenation of Ethylamine on Pt(111). <i>Journal of Physical Chemistry C</i> , 2013, 117, 4666-4679.	3.1	3
87	Solvation structures of protons and hydroxide ions in water. <i>Journal of Chemical Physics</i> , 2013, 138, 154506.	3.0	19
88	Aminovinylidene: A Stable Surface Intermediate in the Dehydrogenation of Ethylamine on Pt(100). <i>ChemCatChem</i> , 2012, 4, 1075-1078.	3.7	5
89	The structure of water in the hydration shell of cations from x-ray Raman and small angle x-ray scattering measurements. <i>Journal of Chemical Physics</i> , 2011, 134, 064513.	3.0	111
90	Increased fraction of low-density structures in aqueous solutions of fluoride. <i>Journal of Chemical Physics</i> , 2011, 134, 224507.	3.0	18

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91	X-ray absorption spectroscopy and X-ray Raman scattering of water and ice; an experimental view. Journal of Electron Spectroscopy and Related Phenomena, 2010, 177, 99-129.	1.7	158
92	Direct Interaction of Water Ice with Hydrophobic Methyl-Terminated Si(111). Journal of Physical Chemistry C, 2010, 114, 19004-19008.	3.1	7
93	Increased fraction of weakened hydrogen bonds of water in aerosol OT reverse micelles. Journal of Chemical Physics, 2009, 131, 031103.	3.0	19
94	Spectroscopic evidence for the formation of 3-D crystallites during isothermal heating of amorphous ice on Pt(111). Surface Science, 2008, 602, 2004-2008.	1.9	15
95	Ambient Pressure X-ray Photoelectron Spectroscopy at the IOS (23-ID-2) Beamline at the National Synchrotron Light Source II. Synchrotron Radiation News, 0, , 1-8.	0.8	7