Eranda Nikolla

List of Publications by Year
in descending order

55 papers	3,274 citations	201674 27 h-index	182427 51 g-index
59 all docs	59 docs citations	59 times ranked	4251 citing authors

#	Article	IF	Citations
1	â€œOne-Potâ€•Synthesis of 5-(Hydroxymethyl)furfural from Carbohydrates using Tin-Beta Zeolite. ACS Catalysis, 2011, 1, 408-410.	11.2	607
2	Metalloenzyme-like catalyzed isomerizations of sugars by Lewis acid zeolites. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9727-9732.	7.1	354
3	Advances in methane conversion processes. Catalysis Today, 2017, 285, 147-158.	4.4	207
4	Promotion of the long-term stability of reforming Ni catalysts by surface alloying. Journal of Catalysis, 2007, 250, 85-93.	6.2	205
5	Controlling Carbon Surface Chemistry by Alloying:Â Carbon Tolerant Reforming Catalyst. Journal of the American Chemical Society, 2006, 128, 11354-11355.	13.7	172
6	Comparative study of the kinetics of methane steam reforming on supported Ni and Sn/Ni alloy catalysts: The impact of the formation of Ni alloy on chemistry. Journal of Catalysis, 2009, 263, 220-227.	6.2	151
7	Measuring and Relating the Electronic Structures of Nonmodel Supported Catalytic Materials to Their Performance. Journal of the American Chemical Society, 2009, 131, 2747-2754.	13.7	102
8	Hydropyrolysis of Lignin Using Pd/HZSM-5. Energy & Fuels, 2015, 29, 1793-1800.	5.1	100
9	Electronic Structure Engineering in Heterogeneous Catalysis: Identifying Novel Alloy Catalysts Based on Rapid Screening for Materials with Desired Electronic Properties. Topics in Catalysis, 2012, 55, 376-390.	2.8	80
10	Control of interfacial acidâ€“metal catalysis with organic monolayers. Nature Catalysis, 2018, 1, 148-155.	34.4	74
11	Hydrocarbon steam reforming on Ni alloys at solid oxide fuel cell operating conditions. Catalysis Today, 2008, 136, 243-248.	4.4	71
12	Direct Electrochemical Oxidation of Hydrocarbon Fuels on SOFCs: Improved Carbon Tolerance of Ni Alloy Anodes. Journal of the Electrochemical Society, 2009, 156, B1312.	2.9	66
13	Molybdenum-Based Polyoxometalates as Highly Active and Selective Catalysts for the Epimerization of Aldoses. ACS Catalysis, 2014, 4, 1358-1364.	11.2	66
14	Multicomponent Catalysts: Limitations and Prospects. ACS Catalysis, 2018, 8, 3202-3208.	11.2	64
15	Establishing Relationships Between the Geometric Structure and Chemical Reactivity of Alloy Catalysts Based on Their Measured Electronic Structure. Topics in Catalysis, 2010, 53, 348-356.	2.8	60
16	Directing Reaction Pathways through Controlled Reactant Binding at Pdâ€“TiO₂ Interfaces. Angewandte Chemie - International Edition, 2017, 56, 6594-6598.	13.8	60
17	Oxygen evolution electrocatalysis using mixed metal oxides under acidic conditions: Challenges and opportunities. Journal of Catalysis, 2020, 388, 130-140.	6.2	59
18	Oxygen Sponges for Electrocatalysis: Oxygen Reduction/Evolution on Nonstoichiometric, Mixed Metal Oxides. Chemistry of Materials, 2018, 30, 2860-2872.	6.7	56

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19	Electrochemical Conversion of Biomass-Based Oxygenated Compounds. Annual Review of Chemical and Biomolecular Engineering, 2019, 10, 85-104.	6.8	55
20	Identifying optimal active sites for heterogeneous catalysis by metal alloys based on molecular descriptors and electronic structure engineering. Current Opinion in Chemical Engineering, 2013, 2, 312-319.	7.8	54
21	Efficient Oxygen Electrocatalysis by Nanostructured Mixed-Metal Oxides. Journal of the American Chemical Society, 2018, 140, 8128-8137.	13.7	49
22	Optimizing cathode materials for intermediate-temperature solid oxide fuel cells (SOFCs): Oxygen reduction on nanostructured lanthanum nickelate oxides. Applied Catalysis B: Environmental, 2017, 200, 106-113.	20.2	41
23	Atomically dispersed Pb ionic sites in PbCdSe quantum dot gels enhance room-temperature NO2 sensing. Nature Communications, 2021, 12, 4895.	12.8	40
24	Tunable Catalytic Performance of Palladium Nanoparticles for H₂O₂ Direct Synthesis via Surface-Bound Ligands. ACS Catalysis, 2020, 10, 5202-5207.	11.2	39
25	Electro- and thermal-catalysis by layered, first series Ruddlesden-Popper oxides. Catalysis Today, 2016, 277, 214-226.	4.4	34
26	Design of Ruddlesdenâ€“Popper Oxides with Optimal Surface Oxygen Exchange Properties for Oxygen Reduction and Evolution. ACS Catalysis, 2017, 7, 5912-5920.	11.2	32
27	Engineering Complex, Layered Metal Oxides: High-Performance Nickelate Oxide Nanostructures for Oxygen Exchange and Reduction. ACS Catalysis, 2015, 5, 4013-4019.	11.2	30
28	Design Strategies for Efficient Nonstoichiometric Mixed Metal Oxide Electrocatalysts: Correlating Measurable Oxide Properties to Electrocatalytic Performance. ACS Catalysis, 2019, 9, 10575-10586.	11.2	28
29	Fundamental Insights into High-Temperature Water Electrolysis Using Ni-Based Electrocatalysts. Journal of Physical Chemistry C, 2015, 119, 26980-26988.	3.1	26
30	Synthesis of shape-controlled La₂NiO_{4+Î´} nanostructures and their anisotropic properties for oxygen diffusion. Chemical Communications, 2015, 51, 137-140.	4.1	26
31	Nonprecious Metal Catalysts for Tuning Discharge Product Distribution at Solidâ€“Solid Interfaces of Aprotic Liâ€“O₂ Batteries. Chemistry of Materials, 2019, 31, 7300-7310.	6.7	25
32	Dynamic Surface Reconstruction Unifies the Electrocatalytic Oxygen Evolution Performance of Nonstoichiometric Mixed Metal Oxides. Jacs Au, 2021, 1, 2224-2241.	7.9	23
33	Directing Reaction Pathways through Controlled Reactant Binding at Pdâ€“TiO 2 Interfaces. Angewandte Chemie, 2017, 129, 6694-6698.	2.0	22
34	Nanoengineering of solid oxide electrochemical cell technologies: An outlook. Nano Research, 2019, 12, 2081-2092.	10.4	19
35	Reaction paths for hydrodeoxygenation of furfuryl alcohol at TiO2/Pd interfaces. Journal of Catalysis, 2019, 377, 28-40.	6.2	17
36	Electrochemical oxygen reduction on layered mixed metal oxides: Effect of B-site substitution. Journal of Electroanalytical Chemistry, 2019, 833, 490-497.	3.8	17

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37	Electrochemical Reduction of CO₂ on Metal-Based Cathode Electrocatalysts of Solid Oxide Electrolysis Cells. Industrial & Engineering Chemistry Research, 2020, 59, 15884-15893.	3.7	17
38	First-Principles Study of High Temperature CO₂ Electrolysis on Transition Metal Electrocatalysts. Industrial & Engineering Chemistry Research, 2017, 56, 6155-6163.	3.7	16
39	Embracing the Complexity of Catalytic Structures: A Viewpoint on the Synthesis of Nonstoichiometric Mixed Metal Oxides for Catalysis. ACS Catalysis, 2020, 10, 516-527.	11.2	14
40	Communications: Developing relationships between the local chemical reactivity of alloy catalysts and physical characteristics of constituent metal elements. Journal of Chemical Physics, 2010, 132, 111101.	3.0	13
41	Nanostructured Nickelate Oxides as Efficient and Stable Cathode Electrocatalysts for Liâ€“O2 Batteries. Topics in Catalysis, 2015, 58, 513-521.	2.8	12
42	Supported Bifunctional Molybdenum Oxide-Palladium Catalysts for Selective Hydrodeoxygenation of Biomass-Derived Polyols and 1,4-Anhydroerythritol. ACS Sustainable Chemistry and Engineering, 2022, 10, 5719-5727.	6.7	12
43	Modulating Catalytic Properties of Targeted Metal Cationic Centers in Nonstochiometric Mixed Metal Oxides for Electrochemical Oxygen Reduction. ACS Energy Letters, 2021, 6, 1065-1072.	17.4	10
44	Well-Defined Nanostructures for Catalysis by Atomic Layer Deposition. Studies in Surface Science and Catalysis, 2017, 177, 643-676.	1.5	9
45	Aprotic Alkali Metalâ€“O₂ Batteries: Role of Cathode Surface-Mediated Processes and Heterogeneous Electrocatalysis. ACS Energy Letters, 2021, 6, 665-674.	17.4	8
46	Elucidating the Role of B-Site Cations toward CO₂ Reduction in Perovskite-Based Solid Oxide Electrolysis Cells. Journal of the Electrochemical Society, 2022, 169, 034532.	2.9	8
47	Reactivity of Pdâ€“MO₂ encapsulated catalytic systems for CO oxidation. Catalysis Science and Technology, 2022, 12, 1476-1486.	4.1	7
48	Hydrogen bonding. Part 82. Thermodynamic and infrared study of dimethonium and pentamethonium halide dihydrates. Journal of Molecular Structure, 2003, 657, 117-123.	3.6	4
49	<i>110th Anniversary:</i> Fabrication of Inverted Pd@TiO₂ Nanostructures for Selective Catalysis. Industrial & Engineering Chemistry Research, 2019, 58, 4032-4041.	3.7	4
50	Selective Câˆ’O Bond Cleavage of Bioâ€Based Organic Acids over Palladium Promoted MoO x /TiO 2. ChemCatChem, 2021, 13, 1294-1298.	3.7	4
51	Hydrogen bonding. Part 83. The bis-troponehydrogen cation: preparation, IR, and MO study of a proton bridged dimer of tropone with a covalent three-center OHO bond. Journal of Molecular Structure, 2004, 691, 211-216.	3.6	2
52	Heterogeneous electrocatalysts for CO2 reduction. Catalysis, 0, , 94-121.	1.0	2
53	From Molecular Insights to Novel Catalysts Formulation. , 2010, , 275-292.		1
54	Hydrogen bonding. Part 80. Molecular orbital evaluation of Câ€“H hydrogen bonding in tetramethylammonium tetrahydroborate. Journal of Molecular Structure, 2002, 616, 181-186.	3.6	0

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55	Ionic organoboranes. Part 9. Ab initio molecular orbital study of energy, structure, and frontier orbitals of the isomeric [7.7.10x,y]ousenes. Journal of Molecular Structure, 2003, 655, 251-257.	3.6	0