

Matthew M Montemore

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

1,468
citations

430442

18
h-index

329751

37
g-index

40
all docs

40
docs citations

40
times ranked

2020
citing authors

#	ARTICLE	IF	CITATIONS
1	O ₂ Activation by Metal Surfaces: Implications for Bonding and Reactivity on Heterogeneous Catalysts. <i>Chemical Reviews</i> , 2018, 118, 2816-2862.	23.0	363
2	Scaling relations between adsorption energies for computational screening and design of catalysts. <i>Catalysis Science and Technology</i> , 2014, 4, 3748-3761.	2.1	225
3	Enhanced dry reforming of methane on Ni and Ni-Pt catalysts synthesized by atomic layer deposition. <i>Applied Catalysis A: General</i> , 2015, 492, 107-116.	2.2	89
4	The selective oxidation of ethylene glycol and 1,2-propanediol on Au, Pd, and Au-Pd bimetallic catalysts. <i>Journal of Catalysis</i> , 2013, 307, 111-120.	3.1	82
5	Integrated Catalysis-Surface Science-Theory Approach to Understand Selectivity in the Hydrogenation of 1-Hexyne to 1-Hexene on PdAu Single-Atom Alloy Catalysts. <i>ACS Catalysis</i> , 2019, 9, 8757-8765.	5.5	63
6	A Unified Picture of Adsorption on Transition Metals through Different Atoms. <i>Journal of the American Chemical Society</i> , 2014, 136, 9272-9275.	6.6	55
7	Dilute Alloys Based on Au, Ag, or Cu for Efficient Catalysis: From Synthesis to Active Sites. <i>Chemical Reviews</i> , 2022, 122, 8758-8808.	23.0	50
8	How Does Nanoporous Gold Dissociate Molecular Oxygen?. <i>Journal of Physical Chemistry C</i> , 2016, 120, 16636-16640.	1.5	46
9	Machine Learning Prediction of H Adsorption Energies on Ag Alloys. <i>Journal of Chemical Information and Modeling</i> , 2019, 59, 1357-1365.	2.5	38
10	Site-Specific Scaling Relations for Hydrocarbon Adsorption on Hexagonal Transition Metal Surfaces. <i>Journal of Physical Chemistry C</i> , 2013, 117, 20078-20088.	1.5	36
11	Predicting and Comparing M and O Bond Strengths for Adsorption on Transition Metal Surfaces. <i>Journal of Physical Chemistry C</i> , 2014, 118, 2666-2672.	1.5	36
12	Direct visualization of quasi-ordered oxygen chain structures on Au(110)-(1 × 2). <i>Surface Science</i> , 2016, 650, 5-10.	0.8	29
13	Effect of nanoscale flows on the surface structure of nanoporous catalysts. <i>Journal of Chemical Physics</i> , 2017, 146, 214703.	1.2	24
14	Evolution of steady-state material properties during catalysis: Oxidative coupling of methanol over nanoporous Ag _{0.03} Au _{0.97} . <i>Journal of Catalysis</i> , 2019, 380, 366-374.	3.1	24
15	Anhydrous Methanol and Ethanol Dehydrogenation at Cu(111) Step Edges. <i>Journal of Physical Chemistry C</i> , 2018, 122, 21952-21962.	1.5	21
16	General screening of surface alloys for catalysis. <i>Catalysis Science and Technology</i> , 2020, 10, 4467-4476.	2.1	21
17	Hydrocarbon adsorption in an aqueous environment: A computational study of alkyls on Cu(111). <i>Journal of Chemical Physics</i> , 2016, 145, 074702.	1.2	20
18	Macroscopic 3D Nanoporosity Formation by Dry Oxidation of AgAu Alloys. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5115-5122.	1.5	18

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19	A Comparative Ab Initio Study of Anhydrous Dehydrogenation of Linear-Chain Alcohols on Cu(110). <i>Journal of Physical Chemistry C</i> , 2018, 122, 7806-7815.	1.5	18
20	Stabilization of a nanoporous NiCu dilute alloy catalyst for non-oxidative ethanol dehydrogenation. <i>Catalysis Science and Technology</i> , 2020, 10, 5207-5217.	2.1	17
21	Controlling O coverage and stability by alloying Au and Ag. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 26844-26853.	1.3	16
22	Factors controlling oxophilicity and carbophilicity of transition metals and main group metals. <i>Journal of Materials Chemistry A</i> , 2021, 9, 22325-22333.	5.2	16
23	Predicting X-ray Photoelectron Peak Shapes: the Effect of Electronic Structure. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10685-10692.	1.5	16
24	Catalyst design for enhanced sustainability through fundamental surface chemistry. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150077.	1.6	15
25	Interactions of Hydrogen, CO, Oxygen, and Water with Molybdenum-Modified Pt(111). <i>Journal of Physical Chemistry C</i> , 2013, 117, 26716-26724.	1.5	14
26	A density functional study of C1-C4 alkyl adsorption on Cu(111). <i>Journal of Chemical Physics</i> , 2012, 136, 204710.	1.2	13
27	A Simple, Accurate Model for Alkyl Adsorption on Late Transition Metals. <i>Journal of Physical Chemistry C</i> , 2013, 117, 2835-2843.	1.5	12
28	When more is less: Nonmonotonic trends in adsorption on clusters in alloy surfaces. <i>Journal of Chemical Physics</i> , 2020, 153, 111102.	1.2	12
29	PTML Model for Selection of Nanoparticles, Anticancer Drugs, and Vitamins in the Design of Drug-Vitamin Nanoparticle Release Systems for Cancer Cotherapy. <i>Molecular Pharmaceutics</i> , 2020, 17, 2612-2627.	2.3	12
30	Scaling the rough heights. <i>Nature Chemistry</i> , 2015, 7, 378-380.	6.6	10
31	Nonadiabatic Hydrogen Dissociation on Copper Nanoclusters. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5339-5343.	2.1	10
32	Alloy Catalyst Design beyond the Volcano Plot by Breaking Scaling Relations. <i>Journal of Physical Chemistry C</i> , 2022, 126, 3993-3999.	1.5	10
33	Density Functional Theory Investigation of Oxidation Intermediates on Gold and Gold-Silver Surfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 8843-8853.	1.5	9
34	Reaction-Induced Excitations and Their Effect on Surface Chemistry. <i>ACS Catalysis</i> , 2018, 8, 10358-10363.	5.5	8
35	Combining Citation Network Information and Text Similarity for Research Article Recommender Systems. <i>IEEE Access</i> , 2022, 10, 16-23.	2.6	8
36	Recent progress towards a universal machine learning model for reaction energetics in heterogeneous catalysis. <i>Current Opinion in Chemical Engineering</i> , 2022, 36, 100821.	3.8	7

#	ARTICLE	IF	CITATIONS
37	Oxygen adsorption on spontaneously reconstructed Au(511). <i>Surface Science</i> , 2019, 679, 296-303.	0.8	5
38	New Experimental and Computational Tools for Drug Discovery. From Old Way to New Series “ Part-X. <i>Current Topics in Medicinal Chemistry</i> , 2020, 20, 2279-2280.	1.0	0