

Zhi-Jun Sui

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6137525/publications.pdf>

Version: 2024-02-01

59
papers

2,754
citations

201674

27
h-index

182427

51
g-index

59
all docs

59
docs citations

59
times ranked

2377
citing authors

#	ARTICLE	IF	CITATIONS
1	On the ensemble requirement of fully selective chemical looping methane partial oxidation over La-Fe-based perovskites. <i>Applied Catalysis B: Environmental</i> , 2022, 301, 120788.	20.2	34
2	Computer-aided bimetallic catalyst screening for ester selective hydrogenation. <i>Catalysis Science and Technology</i> , 2022, 12, 2761-2765.	4.1	2
3	A Mechanistic Study of Oxygen Replenishment of Reduced Perovskites in Chemical Looping Redox Reactions. <i>Journal of Physical Chemistry C</i> , 2022, 126, 7431-7445.	3.1	3
4	Enhanced catalytic performance of transition metal-doped Cr ₂ O ₃ catalysts for propane dehydrogenation: A microkinetic modeling study. <i>Chemical Engineering Journal</i> , 2022, 446, 136913.	12.7	4
5	Probing the structure sensitivity of dimethyl oxalate partial hydrogenation over Ag nanoparticles: A combined experimental and microkinetic study. <i>Chemical Engineering Science</i> , 2022, 259, 117830.	3.8	9
6	Support effects of Cs/Al ₂ O ₃ catalyzed aldol condensation of methyl acetate with formaldehyde. <i>Catalysis Today</i> , 2021, 365, 310-317.	4.4	27
7	Tailoring catalytic properties of V ₂ O ₃ to propane dehydrogenation through single-atom doping: A DFT study. <i>Catalysis Today</i> , 2021, 368, 46-57.	4.4	29
8	Rational Design of Single-Atom-Doped Ga ₂ O ₃ Catalysts for Propane Dehydrogenation: Breaking through Volcano Plot by Lewis Acid-Base Interactions. <i>ACS Catalysis</i> , 2021, 11, 5135-5147.	11.2	41
9	Effects of Oxygen Vacancy and Pt Doping on the Catalytic Performance of CeO ₂ in Propane Dehydrogenation: A First-Principles Study. <i>Chinese Journal of Chemistry</i> , 2021, 39, 2391-2402.	4.9	13
10	High-Throughput Screening of Alloy Catalysts for Dry Methane Reforming. <i>ACS Catalysis</i> , 2021, 11, 8881-8894.	11.2	47
11	Rational design of intermetallic compound catalysts for propane dehydrogenation from a descriptor-based microkinetic analysis. <i>Journal of Catalysis</i> , 2021, 404, 32-45.	6.2	15
12	Structural and Kinetics Understanding of Support Effects in Pd-Catalyzed Semi-Hydrogenation of Acetylene. <i>Engineering</i> , 2021, 7, 103-110.	6.7	36
13	Tuning partially charged Pt ⁺ of atomically dispersed Pt catalysts toward superior propane dehydrogenation performance. <i>Catalysis Science and Technology</i> , 2021, 11, 7840-7843.	4.1	5
14	Structural stability of Lanthanum-based oxygen-deficient perovskites in redox catalysis: A density functional theory study. <i>Catalysis Today</i> , 2020, 347, 142-149.	4.4	18
15	Tailoring electronic properties and kinetics behaviors of Pd/Ni-CNTs catalysts for selective hydrogenation of acetylene. <i>AIChE Journal</i> , 2020, 66, e16857.	3.6	28
16	Dry reforming of methane on Ni-Fe-MgO catalysts: Influence of Fe on carbon-resistant property and kinetics. <i>Applied Catalysis B: Environmental</i> , 2020, 264, 118497.	20.2	122
17	Size Dependence of Pt Catalysts for Propane Dehydrogenation: from Atomically Dispersed to Nanoparticles. <i>ACS Catalysis</i> , 2020, 10, 12932-12942.	11.2	144
18	Beyond the Reverse Horiuti-Polanyi Mechanism in Propane Dehydrogenation over Pt Catalysts. <i>ACS Catalysis</i> , 2020, 10, 14887-14902.	11.2	44

#	ARTICLE	IF	CITATIONS
19	Identification of Synergistic Actions between Cu ⁰ and Cu ⁺ Sites in Hydrogenation of Dimethyl Oxalate from Microkinetic Analysis. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 22451-22459.	3.7	11
20	Rational screening of single-atom-doped ZnO catalysts for propane dehydrogenation from microkinetic analysis. <i>Catalysis Science and Technology</i> , 2020, 10, 4938-4951.	4.1	18
21	Adsorption Site Regulation to Guide Atomic Design of Ni-Ga Catalysts for Acetylene Semi-Hydrogenation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 11647-11652.	13.8	111
22	Dual-function catalysis in propane dehydrogenation over Pt ₁ -Ga ₂ O ₃ catalyst: Insights from a microkinetic analysis. <i>AIChE Journal</i> , 2020, 66, e16232.	3.6	27
23	Adsorption Site Regulation to Guide Atomic Design of Ni-Ga Catalysts for Acetylene Semi-Hydrogenation. <i>Angewandte Chemie</i> , 2020, 132, 11744-11749.	2.0	31
24	Hierarchical NiCo LDH-rGO/Ni Foam Composite as Electrode Material for High-Performance Supercapacitors. <i>Transactions of Tianjin University</i> , 2019, 25, 266-275.	6.4	17
25	Thermal stability of nanoparticle supported on Al ₂ O ₃ with different morphologies. <i>Materials Research Express</i> , 2019, 6, 095064.	1.6	1
26	Size-Dependent Segregation Preference in Single-Atom Alloys of Late Transition Metals: Effects of Magnetism, Electron Correlation, and Geometrical Strain. <i>Journal of Physical Chemistry C</i> , 2019, 123, 18417-18424.	3.1	8
27	Origin of Chemisorption Energy Scaling Relations over Perovskite Surfaces. <i>Journal of Physical Chemistry C</i> , 2019, 123, 28275-28283.	3.1	11
28	Toward rational catalyst design for partial hydrogenation of dimethyl oxalate to methyl glycolate: a descriptor-based microkinetic analysis. <i>Catalysis Science and Technology</i> , 2019, 9, 5763-5773.	4.1	19
29	The role of H ₂ S addition on Pt/Al ₂ O ₃ catalyzed propane dehydrogenation: a mechanistic study. <i>Catalysis Science and Technology</i> , 2019, 9, 867-876.	4.1	21
30	Insights into Hydrogen Transport Behavior on Perovskite Surfaces: Transition from the Grotthuss Mechanism to the Vehicle Mechanism. <i>Langmuir</i> , 2019, 35, 9962-9969.	3.5	29
31	Tuning Adsorption and Catalytic Properties of ±Cr ₂ O ₃ and ZnO in Propane Dehydrogenation by Creating Oxygen Vacancy and Doping Single Pt Atom: A Comparative First-Principles Study. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 10199-10209.	3.7	38
32	Surface phase diagrams of La-based perovskites towards the O-rich limit from first principles. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 12859-12871.	2.8	7
33	BEEF-vdW+ <i>U</i> method applied to perovskites: thermodynamic, structural, electronic, and magnetic properties. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 145901.	1.8	11
34	Electronic Origin of Oxygen Transport Behavior in La-Based Perovskites: A Density Functional Theory Study. <i>Journal of Physical Chemistry C</i> , 2019, 123, 275-290.	3.1	25
35	Kinetics Insights and Active Sites Discrimination of Pd-Catalyzed Selective Hydrogenation of Acetylene. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 1888-1895.	3.7	34
36	Pore network modeling of catalyst deactivation by coking, from single site to particle, during propane dehydrogenation. <i>AIChE Journal</i> , 2019, 65, 140-150.	3.6	43

#	ARTICLE	IF	CITATIONS
37	Improved selectivity and coke resistance of core-shell alloy catalysts for propane dehydrogenation from first principles and microkinetic analysis. <i>Chemical Engineering Journal</i> , 2019, 377, 120049.	12.7	42
38	Boosting Size-Selective Hydrogen Combustion in the Presence of Propene Using Controllable Metal Clusters Encapsulated in Zeolite. <i>Angewandte Chemie</i> , 2018, 130, 9918-9922.	2.0	4
39	Boosting Size-Selective Hydrogen Combustion in the Presence of Propene Using Controllable Metal Clusters Encapsulated in Zeolite. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 9770-9774.	13.8	34
40	Coke Formation on Pt-Sn/Al ₂ O ₃ Catalyst for Propane Dehydrogenation. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 8647-8654.	3.7	106
41	Selective Hydrogenation of Acetylene over Pd-In/Al ₂ O ₃ Catalyst: Promotional Effect of Indium and Composition-Dependent Performance. <i>ACS Catalysis</i> , 2017, 7, 7835-7846.	11.2	194
42	Reaction mechanism and kinetics for hydrolytic dehydrogenation of ammonia borane on a Pt/CNT catalyst. <i>AIChE Journal</i> , 2017, 63, 60-65.	3.6	90
43	Composition of the Green Oil in Hydrogenation of Acetylene over a Commercial Pd-Ag/Al ₂ O ₃ Catalyst. <i>Chemical Engineering and Technology</i> , 2016, 39, 865-873.	1.5	39
44	Hierarchical MgAl ₂ O ₄ supported Pt-Sn as a highly thermostable catalyst for propane dehydrogenation. <i>Catalysis Communications</i> , 2016, 84, 85-88.	3.3	28
45	Density Functional Theory-Assisted Microkinetic Analysis of Methane Dry Reforming on Ni Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 5901-5913.	3.7	158
46	Insights into the effects of steam on propane dehydrogenation over a Pt/Al ₂ O ₃ catalyst. <i>Catalysis Science and Technology</i> , 2015, 5, 3991-4000.	4.1	21
47	Size-Dependent Reaction Mechanism and Kinetics for Propane Dehydrogenation over Pt Catalysts. <i>ACS Catalysis</i> , 2015, 5, 6310-6319.	11.2	189
48	Selective Oxidation of Hydrogen in the Presence of Propylene over Pt-Based Core-Shell Nanocatalysts. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21386-21394.	3.1	15
49	Effect of steam addition on the structure and activity of Pt-Sn catalysts in propane dehydrogenation. <i>Chemical Engineering Journal</i> , 2015, 278, 240-248.	12.7	54
50	Evaluation of approximations for concentration-dependent micropore diffusion in sorbent with bidisperse pore structure. <i>Adsorption</i> , 2014, 20, 843-853.	3.0	3
51	Tuning selectivity and stability in propane dehydrogenation by shaping Pt particles: A combined experimental and DFT study. <i>Journal of Molecular Catalysis A</i> , 2014, 395, 329-336.	4.8	48
52	First-Principles Calculations of Propane Dehydrogenation over PtSn Catalysts. <i>ACS Catalysis</i> , 2012, 2, 1247-1258.	11.2	235
53	DFT study of propane dehydrogenation on Pt catalyst: effects of step sites. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 3257.	2.8	173
54	Coke Formation on Pt-Sn/Al ₂ O ₃ Catalyst in Propane Dehydrogenation: Coke Characterization and Kinetic Study. <i>Topics in Catalysis</i> , 2011, 54, 888-896.	2.8	132

#	ARTICLE	IF	CITATIONS
55	Carbon nanofibers supported Ru catalyst for sorbitol hydrogenolysis to glycols: Effect of calcination. Korean Journal of Chemical Engineering, 2010, 27, 1412-1418.	2.7	23
56	Density functional study of the chemisorption of C1, C2 and C3 intermediates in propane dissociation on Pt(111). Journal of Molecular Catalysis A, 2010, 321, 42-49.	4.8	77
57	Effect of hydrogen on the synthesis of carbon nanofibers by CO disproportionation on ultrafine Fe ₃ O ₄ . Asia-Pacific Journal of Chemical Engineering, 2009, 4, 590-595.	1.5	0
58	Grafting of polystyrene on carbon nanofibers by introducing a methacrylate unit. Polymer International, 2009, 58, 564-569.	3.1	4
59	Catalytic Vapor Decomposition of Methane over Nickle Catalyst: Growth Rate and the Corresponding Microstructures of Carbon Nanofibers. Journal of Chemical Engineering of Japan, 2009, 42, S204-S211.	0.6	2