

Suljo Linic

List of Publications by Year in descending order

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76
papers

17,293
citations

44042

48
h-index

69214

77
g-index

82
all docs

82
docs citations

82
times ranked

17676
citing authors

#	ARTICLE	IF	CITATIONS
1	Plasmonic-metal nanostructures for efficient conversion of solar to chemical energy. <i>Nature Materials</i> , 2011, 10, 911-921.	13.3	4,163
2	Visible-light-enhanced catalytic oxidation reactions on plasmonic silver nanostructures. <i>Nature Chemistry</i> , 2011, 3, 467-472.	6.6	1,662
3	Photochemical transformations on plasmonic metal nanoparticles. <i>Nature Materials</i> , 2015, 14, 567-576.	13.3	1,328
4	Water Splitting on Composite Plasmonic-Metal/Semiconductor Photoelectrodes: Evidence for Selective Plasmon-Induced Formation of Charge Carriers near the Semiconductor Surface. <i>Journal of the American Chemical Society</i> , 2011, 133, 5202-5205.	6.6	782
5	Singular characteristics and unique chemical bond activation mechanisms of photocatalytic reactions on plasmonic nanostructures. <i>Nature Materials</i> , 2012, 11, 1044-1050.	13.3	720
6	Catalytic conversion of solar to chemical energy on plasmonic metal nanostructures. <i>Nature Catalysis</i> , 2018, 1, 656-665.	16.1	582
7	Tuning Selectivity in Propylene Epoxidation by Plasmon Mediated Photo-Switching of Cu Oxidation State. <i>Science</i> , 2013, 339, 1590-1593.	6.0	553
8	Evidence and implications of direct charge excitation as the dominant mechanism in plasmon-mediated photocatalysis. <i>Nature Communications</i> , 2016, 7, 10545.	5.8	392
9	High-performance Ag ⁺ Co alloy catalysts for electrochemical oxygen reduction. <i>Nature Chemistry</i> , 2014, 6, 828-834.	6.6	383
10	Controlling energy flow in multimetallic nanostructures for plasmonic catalysis. <i>Nature Nanotechnology</i> , 2017, 12, 1000-1005.	15.6	367
11	Mechanism of Charge Transfer from Plasmonic Nanostructures to Chemically Attached Materials. <i>ACS Nano</i> , 2016, 10, 6108-6115.	7.3	335
12	Enhancing Photochemical Activity of Semiconductor Nanoparticles with Optically Active Ag Nanostructures: Photochemistry Mediated by Ag Surface Plasmons. <i>Journal of Physical Chemistry C</i> , 2010, 114, 9173-9177.	1.5	307
13	Elementary Mechanisms in Electrocatalysis: Revisiting the ORR Tafel Slope. <i>Journal of the Electrochemical Society</i> , 2012, 159, H864-H870.	1.3	300
14	Engineering Selectivity in Heterogeneous Catalysis: Ag Nanowires as Selective Ethylene Epoxidation Catalysts. <i>Journal of the American Chemical Society</i> , 2008, 130, 11264-11265.	6.6	288
15	Predictive Model for the Design of Plasmonic Metal/Semiconductor Composite Photocatalysts. <i>ACS Catalysis</i> , 2011, 1, 1441-1447.	5.5	279
16	Catalytic and Photocatalytic Transformations on Metal Nanoparticles with Targeted Geometric and Plasmonic Properties. <i>Accounts of Chemical Research</i> , 2013, 46, 1890-1899.	7.6	245
17	Formation of a Stable Surface Oxametallacycle that Produces Ethylene Oxide. <i>Journal of the American Chemical Society</i> , 2002, 124, 310-317.	6.6	211
18	Control of Ethylene Epoxidation Selectivity by Surface Oxametallacycles. <i>Journal of the American Chemical Society</i> , 2003, 125, 4034-4035.	6.6	208

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19	Communications: Exceptions to the d-band model of chemisorption on metal surfaces: The dominant role of repulsion between adsorbate states and metal d-states. <i>Journal of Chemical Physics</i> , 2010, 132, 221101.	1.2	201
20	Flow and extraction of energy and charge carriers in hybrid plasmonic nanostructures. <i>Nature Materials</i> , 2021, 20, 916-924.	13.3	195
21	Selectivity driven design of bimetallic ethylene epoxidation catalysts from first principles. <i>Journal of Catalysis</i> , 2004, 224, 489-493.	3.1	188
22	A Viewpoint on Direct Methane Conversion to Ethane and Ethylene Using Oxidative Coupling on Solid Catalysts. <i>ACS Catalysis</i> , 2016, 6, 4340-4346.	5.5	187
23	Shape- and Size-Specific Chemistry of Ag Nanostructures in Catalytic Ethylene Epoxidation. <i>ChemCatChem</i> , 2010, 2, 78-83.	1.8	186
24	Construction of a reaction coordinate and a microkinetic model for ethylene epoxidation on silver from DFT calculations and surface science experiments. <i>Journal of Catalysis</i> , 2003, 214, 200-212.	3.1	174
25	Controlling Carbon Surface Chemistry by Alloying: A Carbon Tolerant Reforming Catalyst. <i>Journal of the American Chemical Society</i> , 2006, 128, 11354-11355.	6.6	172
26	Hydrothermal catalytic production of fuels and chemicals from aquatic biomass. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 13-24.	1.6	163
27	Stable and selective catalysts for propane dehydrogenation operating at thermodynamic limit. <i>Science</i> , 2021, 373, 217-222.	6.0	159
28	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. <i>Journal of Catalysis</i> , 2009, 263, 220-227.	3.1	151
29	Predictive Structure-Reactivity Models for Rapid Screening of Pt-Based Multimetallic Electrocatalysts for the Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2012, 2, 12-16.	5.5	127
30	Interpretable machine learning for knowledge generation in heterogeneous catalysis. <i>Nature Catalysis</i> , 2022, 5, 175-184.	16.1	127
31	Best Practices in Pursuit of Topics in Heterogeneous Electrocatalysis. <i>ACS Catalysis</i> , 2017, 7, 6392-6393.	5.5	126
32	Chemical Requirement for Extracting Energetic Charge Carriers from Plasmonic Metal Nanoparticles to Perform Electron-Transfer Reactions. <i>Journal of the American Chemical Society</i> , 2019, 141, 643-647.	6.6	116
33	Recent Developments in Nitrogen Reduction Catalysts: A Virtual Issue. <i>ACS Energy Letters</i> , 2019, 4, 163-166.	8.8	115
34	Design Principles for Directing Energy and Energetic Charge Flow in Multicomponent Plasmonic Nanostructures. <i>ACS Energy Letters</i> , 2018, 3, 1590-1596.	8.8	114
35	On the Mechanism of Cs Promotion in Ethylene Epoxidation on Ag. <i>Journal of the American Chemical Society</i> , 2004, 126, 8086-8087.	6.6	102
36	Measuring and Relating the Electronic Structures of Nonmodel Supported Catalytic Materials to Their Performance. <i>Journal of the American Chemical Society</i> , 2009, 131, 2747-2754.	6.6	102

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37	Ethylene Epoxidation on Ag: Identification of the Crucial Surface Intermediate by Experimental and Theoretical Investigation of its Electronic Structure. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 2918-2921.	7.2	87
38	Electronic Structure Engineering in Heterogeneous Catalysis: Identifying Novel Alloy Catalysts Based on Rapid Screening for Materials with Desired Electronic Properties. <i>Topics in Catalysis</i> , 2012, 55, 376-390.	1.3	80
39	Direct Electrochemical Oxidation of Hydrocarbon Fuels on SOFCs: Improved Carbon Tolerance of Ni Alloy Anodes. <i>Journal of the Electrochemical Society</i> , 2009, 156, B1312.	1.3	66
40	Theory-Guided Machine Learning Finds Geometric Structure-Property Relationships for Chemisorption on Subsurface Alloys. <i>CheM</i> , 2020, 6, 3100-3117.	5.8	65
41	Multicomponent Catalysts: Limitations and Prospects. <i>ACS Catalysis</i> , 2018, 8, 3202-3208.	5.5	64
42	Establishing Relationships Between the Geometric Structure and Chemical Reactivity of Alloy Catalysts Based on Their Measured Electronic Structure. <i>Topics in Catalysis</i> , 2010, 53, 348-356.	1.3	60
43	Plasma-driven solution electrolysis. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	58
44	Strong Chemical Interactions Between Au and Off-Stoichiometric Defects on TiO ₂ as a Possible Source of Chemical Activity of Nanosized Au Supported on the Oxide. <i>Journal of Physical Chemistry C</i> , 2009, 113, 6689-6693.	1.5	56
45	Electrochemical Oxygen Reduction Reaction on Ag Nanoparticles of Different Shapes. <i>ChemCatChem</i> , 2016, 8, 256-261.	1.8	55
46	Identifying optimal active sites for heterogeneous catalysis by metal alloys based on molecular descriptors and electronic structure engineering. <i>Current Opinion in Chemical Engineering</i> , 2013, 2, 312-319.	3.8	54
47	Direct electrochemical oxidation of ethanol on SOFCs: Improved carbon tolerance of Ni anode by alloying. <i>Applied Catalysis B: Environmental</i> , 2016, 183, 386-393.	10.8	54
48	Pitfalls and best practices in measurements of the electrochemical surface area of platinum-based nanostructured electro-catalysts. <i>Journal of Catalysis</i> , 2017, 345, 1-10.	3.1	53
49	Design Principles for Efficient and Stable Water Splitting Photoelectrocatalysts. <i>Accounts of Chemical Research</i> , 2021, 54, 1992-2002.	7.6	52
50	Synthesis of Oxametallacycles from 2-Iodoethanol on Ag(111) and the Structure Dependence of Their Reactivity. <i>Langmuir</i> , 2002, 18, 5197-5204.	1.6	48
51	Nanoscale Engineering of Efficient Oxygen Reduction Electrocatalysts by Tailoring the Local Chemical Environment of Pt Surface Sites. <i>ACS Catalysis</i> , 2017, 7, 17-24.	5.5	44
52	First-Principles Investigations of Electrochemical Oxidation of Hydrogen at Solid Oxide Fuel Cell Operating Conditions. <i>Journal of the Electrochemical Society</i> , 2007, 154, B919.	1.3	43
53	First-Principles Analysis of the Activity of Transition and Noble Metals in the Direct Utilization of Hydrocarbon Fuels at Solid Oxide Fuel Cell Operating Conditions. <i>Journal of the Electrochemical Society</i> , 2009, 156, B1457.	1.3	43
54	In search of membrane-catalyst materials for oxidative coupling of methane: Performance and phase stability studies of gadolinium-doped barium cerate and the impact of Zr doping. <i>Applied Catalysis B: Environmental</i> , 2018, 230, 29-35.	10.8	36

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55	Overcoming Limitation in the Design of Selective Solid Catalysts by Manipulating Shape and Size of Catalytic Particles: Epoxidation Reactions on Silver. <i>ChemCatChem</i> , 2010, 2, 1061-1063.	1.8	34
56	Oxidative coupling of methane over mixed oxide catalysts designed for solid oxide membrane reactors. <i>Catalysis Science and Technology</i> , 2016, 6, 4370-4376.	2.1	33
57	Deactivation of Pt Catalysts during Hydrothermal Decarboxylation of Butyric Acid. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 2399-2406.	3.2	30
58	Kinetic Trapping of Immiscible Metal Atoms into Bimetallic Nanoparticles through Plasmonic Visible Light-Mediated Reduction of a Bimetallic Oxide Precursor: Case Study of Ag@Pt Nanoparticle Synthesis. <i>Chemistry of Materials</i> , 2016, 28, 8289-8295.	3.2	30
59	Addressing Challenges and Scalability in the Synthesis of Thin Uniform Metal Shells on Large Metal Nanoparticle Cores: Case Study of Ag@Pt Core@Shell Nanocubes. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 43127-43132.	4.0	30
60	Quantifying Losses and Assessing the Photovoltage Limits in Metal-Insulator-Semiconductor Water Splitting Systems. <i>Advanced Energy Materials</i> , 2020, 10, 1903354.	10.2	30
61	Engineering the Optical and Catalytic Properties of Co-Catalyst/Semiconductor Photocatalysts. <i>ACS Photonics</i> , 2017, 4, 979-985.	3.2	28
62	Maximizing Solar Water Splitting Performance by Nanoscopic Control of the Charge Carrier Fluxes across Semiconductor-Electrocatalyst Junctions. <i>ACS Catalysis</i> , 2018, 8, 8545-8552.	5.5	28
63	Unearthing the factors governing site specific rates of electronic excitations in multicomponent plasmonic systems and catalysts. <i>Faraday Discussions</i> , 2019, 214, 441-453.	1.6	24
64	Critical Practices in Rigorously Assessing the Inherent Activity of Nanoparticle Electrocatalysts. <i>ACS Catalysis</i> , 2020, 10, 10735-10741.	5.5	24
65	Design of Plasmonic Platforms for Selective Molecular Sensing Based on Surface-Enhanced Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2012, 116, 9824-9829.	1.5	22
66	Uncovering electronic and geometric descriptors of chemical activity for metal alloys and oxides using unsupervised machine learning. <i>Chem Catalysis</i> , 2021, 1, 923-940.	2.9	22
67	Guidelines for Optimizing the Performance of Metal-Insulator-Semiconductor (MIS) Photoelectrocatalytic Systems by Tuning the Insulator Thickness. <i>ACS Energy Letters</i> , 2019, 4, 2632-2638.	8.8	18
68	Oxidative Coupling of Methane over Hybrid Membrane/Catalyst Active Centers: Chemical Requirements for Prolonged Lifetime. <i>ACS Energy Letters</i> , 2019, 4, 1465-1470.	8.8	18
69	Microkinetic modeling in electrocatalysis: Applications, limitations, and recommendations for reliable mechanistic insights. <i>Journal of Catalysis</i> , 2021, 404, 864-872.	3.1	16
70	Communications: Developing relationships between the local chemical reactivity of alloy catalysts and physical characteristics of constituent metal elements. <i>Journal of Chemical Physics</i> , 2010, 132, 111101.	1.2	13
71	Analyzing relationships between surface perturbations and local chemical reactivity of metal sites: Alkali promotion of O ₂ dissociation on Ag(111). <i>Journal of Chemical Physics</i> , 2016, 144, 234704.	1.2	13
72	In-operando surface-sensitive probing of electrochemical reactions on nanoparticle electrocatalysts: Spectroscopic characterization of reaction intermediates and elementary steps of oxygen reduction reaction on Pt. <i>Journal of Catalysis</i> , 2021, 396, 32-39.	3.1	11

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73	Characterizing the Geometry and Quantifying the Impact of Nanoscopic Electrocatalyst/Semiconductor Interfaces under Solar Water Splitting Conditions. <i>Advanced Energy Materials</i> , 2022, 12, 2103798.	10.2	9
74	Modeling the Impact of Metallic Plasmonic Resonators on the Solar Conversion Efficiencies of Semiconductor Photoelectrodes: When Does Introducing Buried Plasmonic Nanostructures Make Sense?. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24279-24286.	1.5	5
75	Excellence <i>versus</i> Diversity? Not an Either/Or Choice. <i>ACS Catalysis</i> , 2020, 10, 7310-7311.	5.5	4
76	Optimizing molecular light absorption in the strong coupling regime for solar energy harvesting. <i>Nano Energy</i> , 2022, 98, 107244.	8.2	4