Suljo Linic

List of Publications by Year
in descending order

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	Characterizing the Geometry and Quantifying the Impact of Nanoscopic Electrocatalyst/Semiconductor Interfaces under Solar Water Splitting Conditions. Advanced Energy Materials, 2022, 12, 2103798.	10.2	9
2	Interpretable machine learning for knowledge generation in heterogeneous catalysis. Nature Catalysis, 2022, 5, 175-184.	16.1	127
3	Optimizing molecular light absorption in the strong coupling regime for solar energy harvesting. Nano Energy, 2022, 98, 107244.	8.2	4
4	Flow and extraction of energy and charge carriers in hybrid plasmonic nanostructures. Nature Materials, 2021, 20, 916-924.	13.3	195
5	Design Principles for Efficient and Stable Water Splitting Photoelectrocatalysts. Accounts of Chemical Research, 2021, 54, 1992-2002.	7.6	52
6	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. Journal of Catalysis, 2021, 396, 32-39.	3.1	11
7	Plasma-driven solution electrolysis. Journal of Applied Physics, 2021, 129, .	1.1	58
8	Stable and selective catalysts for propane dehydrogenation operating at thermodynamic limit. Science, 2021, 373, 217-222.	6.0	159
9	Microkinetic modeling in electrocatalysis: Applications, limitations, and recommendations for reliable mechanistic insights. Journal of Catalysis, 2021, 404, 864-872.	3.1	16
10	Uncovering electronic and geometric descriptors of chemical activity for metal alloys and oxides using unsupervised machine learning. Chem Catalysis, 2021, 1, 923-940.	2.9	22
11	Theory-Guided Machine Learning Finds Geometric Structure-Property Relationships for Chemisorption on Subsurface Alloys. CheM, 2020, 6, 3100-3117.	5.8	65
12	Critical Practices in Rigorously Assessing the Inherent Activity of Nanoparticle Electrocatalysts. ACS Catalysis, 2020, 10, 10735-10741.	5.5	24
13	Excellence <i>versus</i> Diversity? Not an Either/Or Choice. ACS Catalysis, 2020, 10, 7310-7311.	5.5	4
14	Quantifying Losses and Assessing the Photovoltage Limits in Metalâ€"Insulatorâ€"Semiconductor Water Splitting Systems. Advanced Energy Materials, 2020, 10, 1903354.	10.2	30
15	Guidelines for Optimizing the Performance of Metalâ€"Insulatorâ€"Semiconductor (MIS) Photoelectrocatalytic Systems by Tuning the Insulator Thickness. ACS Energy Letters, 2019, 4, 2632-2638.	8.8	18
16	Unearthing the factors governing site specific rates of electronic excitations in multicomponent plasmonic systems and catalysts. Faraday Discussions, 2019, 214, 441-453.	1.6	24
17	Oxidative Coupling of Methane over Hybrid Membrane/Catalyst Active Centers: Chemical Requirements for Prolonged Lifetime. ACS Energy Letters, 2019, 4, 1465-1470.	8.8	18
18	Chemical Requirement for Extracting Energetic Charge Carriers from Plasmonic Metal Nanoparticles to Perform Electron-Transfer Reactions. Journal of the American Chemical Society, 2019, 141, 643-647.	6.6	116

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19	Recent Developments in Nitrogen Reduction Catalysts: A Virtual Issue. ACS Energy Letters, 2019, 4, 163-166.	8.8	115
20	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. Applied Catalysis B: Environmental, 2018, 230, 29-35.	10.8	36
21	Multicomponent Catalysts: Limitations and Prospects. ACS Catalysis, 2018, 8, 3202-3208.	5.5	64
22	Modeling the Impact of Metallic Plasmonic Resonators on the Solar Conversion Efficiencies of Semiconductor Photoelectrodes: When Does Introducing Buried Plasmonic Nanostructures Make Sense?. Journal of Physical Chemistry C, 2018, 122, 24279-24286.	1.5	5
23	Catalytic conversion of solar to chemical energy on plasmonic metal nanostructures. Nature Catalysis, 2018, 1, 656-665.	16.1	582
24	Maximizing Solar Water Splitting Performance by Nanoscopic Control of the Charge Carrier Fluxes across Semiconductorâ€“Electrocatalyst Junctions. ACS Catalysis, 2018, 8, 8545-8552.	5.5	28
25	Design Principles for Directing Energy and Energetic Charge Flow in Multicomponent Plasmonic Nanostructures. ACS Energy Letters, 2018, 3, 1590-1596.	8.8	114
26	Pitfalls and best practices in measurements of the electrochemical surface area of platinum-based nanostructured electro-catalysts. Journal of Catalysis, 2017, 345, 1-10.	3.1	53
27	Engineering the Optical and Catalytic Properties of Co-Catalyst/Semiconductor Photocatalysts. ACS Photonics, 2017, 4, 979-985.	3.2	28
28	Best Practices in Pursuit of Topics in Heterogeneous Electrocatalysis. ACS Catalysis, 2017, 7, 6392-6393.	5.5	126
29	Controlling energy flow in multimetallic nanostructures for plasmonic catalysis. Nature Nanotechnology, 2017, 12, 1000-1005.	15.6	367
30	Addressing Challenges and Scalability in the Synthesis of Thin Uniform Metal Shells on Large Metal Nanoparticle Cores: Case Study of Agâ€“Pt Coreâ€“Shell Nanocubes. ACS Applied Materials & Interfaces, 2017, 9, 43127-43132.	4.0	30
31	Nanoscale Engineering of Efficient Oxygen Reduction Electrocatalysts by Tailoring the Local Chemical Environment of Pt Surface Sites. ACS Catalysis, 2017, 7, 17-24.	5.5	44
32	Analyzing relationships between surface perturbations and local chemical reactivity of metal sites: Alkali promotion of O2 dissociation on Ag(111). Journal of Chemical Physics, 2016, 144, 234704.	1.2	13
33	Electrochemical Oxygen Reduction Reaction on Ag Nanoparticles of Different Shapes. ChemCatChem, 2016, 8, 256-261.	1.8	55
34	Kinetic Trapping of Immiscible Metal Atoms into Bimetallic Nanoparticles through Plasmonic Visible Light-Mediated Reduction of a Bimetallic Oxide Precursor: Case Study of Agâ€“Pt Nanoparticle Synthesis. Chemistry of Materials, 2016, 28, 8289-8295.	3.2	30
35	Mechanism of Charge Transfer from Plasmonic Nanostructures to Chemically Attached Materials. ACS Nano, 2016, 10, 6108-6115.	7.3	335
36	A Viewpoint on Direct Methane Conversion to Ethane and Ethylene Using Oxidative Coupling on Solid Catalysts. ACS Catalysis, 2016, 6, 4340-4346.	5.5	187

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37	Evidence and implications of direct charge excitation as the dominant mechanism in plasmon-mediated photocatalysis. Nature Communications, 2016, 7, 10545.	5.8	392
38	Oxidative coupling of methane over mixed oxide catalysts designed for solid oxide membrane reactors. Catalysis Science and Technology, 2016, 6, 4370-4376.	2.1	33
39	Direct electrochemical oxidation of ethanol on SOFCs: Improved carbon tolerance of Ni anode by alloying. Applied Catalysis B: Environmental, 2016, 183, 386-393.	10.8	54
40	Photochemical transformations on plasmonic metal nanoparticles. Nature Materials, 2015, 14, 567-576.	13.3	1,328
41	High-performance Agâ€“Co alloy catalysts for electrochemical oxygen reduction. Nature Chemistry, 2014, 6, 828-834.	6.6	383
42	Deactivation of Pt Catalysts during Hydrothermal Decarboxylation of Butyric Acid. ACS Sustainable Chemistry and Engineering, 2014, 2, 2399-2406.	3.2	30
43	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.	3.8	54
44	Tuning Selectivity in Propylene Epoxidation by Plasmon Mediated Photo-Switching of Cu Oxidation State. Science, 2013, 339, 1590-1593.	6.0	553
45	Hydrothermal catalytic production of fuels and chemicals from aquatic biomass. Journal of Chemical Technology and Biotechnology, 2013, 88, 13-24.	1.6	163
46	Catalytic and Photocatalytic Transformations on Metal Nanoparticles with Targeted Geometric and Plasmonic Properties. Accounts of Chemical Research, 2013, 46, 1890-1899.	7.6	245
47	Predictive Structureâ€“Reactivity Models for Rapid Screening of Pt-Based Multimetallic Electrocatalysts for the Oxygen Reduction Reaction. ACS Catalysis, 2012, 2, 12-16.	5.5	127
48	Singular characteristics and unique chemical bond activation mechanisms of photocatalytic reactions on plasmonic nanostructures. Nature Materials, 2012, 11, 1044-1050.	13.3	720
49	Elementary Mechanisms in Electrocatalysis: Revisiting the ORR Tafel Slope. Journal of the Electrochemical Society, 2012, 159, H864-H870.	1.3	300
50	Design of Plasmonic Platforms for Selective Molecular Sensing Based on Surface-Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 9824-9829.	1.5	22
51	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.	1.3	80
52	Predictive Model for the Design of Plasmonic Metal/Semiconductor Composite Photocatalysts. ACS Catalysis, 2011, 1, 1441-1447.	5.5	279
53	Water Splitting on Composite Plasmonic-Metal/Semiconductor Photoelectrodes: Evidence for Selective Plasmon-Induced Formation of Charge Carriers near the Semiconductor Surface. Journal of the American Chemical Society, 2011, 133, 5202-5205.	6.6	782
54	Visible-light-enhanced catalytic oxidation reactions on plasmonic silver nanostructures. Nature Chemistry, 2011, 3, 467-472.	6.6	1,662

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55	Plasmonic-metal nanostructures for efficient conversion of solar to chemical energy. Nature Materials, 2011, 10, 911-921.	13.3	4,163
56	Enhancing Photochemical Activity of Semiconductor Nanoparticles with Optically Active Ag Nanostructures: Photochemistry Mediated by Ag Surface Plasmons. Journal of Physical Chemistry C, 2010, 114, 9173-9177.	1.5	307
57	Shapeâ€•and Sizeâ€Specific Chemistry of Ag Nanostructures in Catalytic Ethylene Epoxidation. ChemCatChem, 2010, 2, 78-83.	1.8	186
58	Overcoming Limitation in the Design of Selective Solid Catalysts by Manipulating Shape and Size of Catalytic Particles: Epoxidation Reactions on Silver. ChemCatChem, 2010, 2, 1061-1063.	1.8	34
59	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.	1.3	60
60	Communications: Exceptions to the d-band model of chemisorption on metal surfaces: The dominant role of repulsion between adsorbate states and metal d-states. Journal of Chemical Physics, 2010, 132, 221101.	1.2	201
61	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.	1.2	13
62	Direct Electrochemical Oxidation of Hydrocarbon Fuels on SOFCs: Improved Carbon Tolerance of Ni Alloy Anodes. Journal of the Electrochemical Society, 2009, 156, B1312.	1.3	66
63	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. Journal of the Electrochemical Society, 2009, 156, B1457.	1.3	43
64	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.	3.1	151
65	Measuring and Relating the Electronic Structures of Nonmodel Supported Catalytic Materials to Their Performance. Journal of the American Chemical Society, 2009, 131, 2747-2754.	6.6	102
66	Strong Chemical Interactions Between Au and Off-Stoichiometric Defects on TiO₂ as a Possible Source of Chemical Activity of Nanosized Au Supported on the Oxide. Journal of Physical Chemistry C, 2009, 113, 6689-6693.	1.5	56
67	Engineering Selectivity in Heterogeneous Catalysis: Ag Nanowires as Selective Ethylene Epoxidation Catalysts. Journal of the American Chemical Society, 2008, 130, 11264-11265.	6.6	288
68	First-Principles Investigations of Electrochemical Oxidation of Hydrogen at Solid Oxide Fuel Cell Operating Conditions. Journal of the Electrochemical Society, 2007, 154, B919.	1.3	43
69	Controlling Carbon Surface Chemistry by Alloying:Â Carbon Tolerant Reforming Catalyst. Journal of the American Chemical Society, 2006, 128, 11354-11355.	6.6	172
70	Ethylene Epoxidation on Ag: Identification of the Crucial Surface Intermediate by Experimental and Theoretical Investigation of its Electronic Structure. Angewandte Chemie - International Edition, 2004, 43, 2918-2921.	7.2	87
71	Selectivity driven design of bimetallic ethylene epoxidation catalysts fromÂfirst principles. Journal of Catalysis, 2004, 224, 489-493.	3.1	188
72	On the Mechanism of Cs Promotion in Ethylene Epoxidation on Ag. Journal of the American Chemical Society, 2004, 126, 8086-8087.	6.6	102

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73	Construction of a reaction coordinate and a microkinetic model forÂethylene epoxidation on silver from DFT calculations and surface science experiments. Journal of Catalysis, 2003, 214, 200-212.	3.1	174
74	Control of Ethylene Epoxidation Selectivity by Surface Oxametallacycles. Journal of the American Chemical Society, 2003, 125, 4034-4035.	6.6	208
75	Synthesis of Oxametallacycles from 2-Iodoethanol on Ag(111) and the Structure Dependence of Their Reactivity. Langmuir, 2002, 18, 5197-5204.	1.6	48
76	Formation of a Stable Surface Oxametallacycle that Produces Ethylene Oxide. Journal of the American Chemical Society, 2002, 124, 310-317.	6.6	211