Vojislav R Stamenkovic

List of Publications by Year
in descending order

107 papers	34,023 citations	12322 69 h-index	22808 112 g-index
120 all docs	120 docs citations	120 times ranked	23679 citing authors

#	Article	IF	Citations
1	Improved Oxygen Reduction Activity on Pt3Ni(111) via Increased Surface Site Availability. Science, 2007, 315, 493-497.	6.0	3,924
2	Trends in electrocatalysis on extended and nanoscale Pt-bimetallic alloy surfaces. Nature Materials, 2007, 6, 241-247.	13.3	2,902
3	Trends in activity for the water electrolyser reactions on 3d M(Ni,Co,Fe,Mn) hydr(oxy)oxide catalysts. Nature Materials, 2012, 11, 550-557.	13.3	2,423
4	Enhancing Hydrogen Evolution Activity in Water Splitting by Tailoring Li ⁺ -Ni(OH) ₂ -Pt Interfaces. Science, 2011, 334, 1256-1260.	6.0	2,385
5	Highly Crystalline Multimetallic Nanoframes with Three-Dimensional Electrocatalytic Surfaces. Science, 2014, 343, 1339-1343.	6.0	2,376
6	Changing the Activity of Electrocatalysts for Oxygen Reduction by Tuning the Surface Electronic Structure. Angewandte Chemie - International Edition, 2006, 45, 2897-2901.	7.2	1,685
7	Energy and fuels from electrochemical interfaces. Nature Materials, 2017, 16, 57-69.	13.3	1,484
8	Improving the hydrogen oxidation reaction rate by promotion of hydroxyl adsorption. Nature Chemistry, 2013, 5, 300-306.	6.6	945
9	Effect of Surface Composition on Electronic Structure, Stability, and Electrocatalytic Properties of Pt-Transition Metal Alloys:Â Pt-Skin versus Pt-Skeleton Surfaces. Journal of the American Chemical Society, 2006, 128, 8813-8819.	6.6	875
10	Design of active and stable Coâ€“Moâ€“Sx chalcogels as pH-universal catalysts for the hydrogen evolution reaction. Nature Materials, 2016, 15, 197-203.	13.3	825
11	Design principles for hydrogen evolution reaction catalyst materials. Nano Energy, 2016, 29, 29-36.	8.2	629
12	Activityâ€“Stability Trends for the Oxygen Evolution Reaction on Monometallic Oxides in Acidic Environments. Journal of Physical Chemistry Letters, 2014, 5, 2474-2478.	2.1	569
13	Design and Synthesis of Bimetallic Electrocatalyst with Multilayered Pt-Skin Surfaces. Journal of the American Chemical Society, 2011, 133, 14396-14403.	6.6	541
14	Dynamic stability of active sites in hydr(oxy)oxides for the oxygen evolution reaction. Nature Energy, 2020, 5, 222-230.	19.8	540
15	The Effect of the Particle Size on the Kinetics of CO Electrooxidation on High Surface Area Pt Catalysts. Journal of the American Chemical Society, 2005, 127, 6819-6829.	6.6	514
16	Multimetallic Au/FePt₃ Nanoparticles as Highly Durable Electrocatalyst. Nano Letters, 2011, 11, 919-926.	4.5	435
17	Surfactant Removal for Colloidal Nanoparticles from Solution Synthesis: The Effect on Catalytic Performance. ACS Catalysis, 2012, 2, 1358-1362.	5.5	426
18	Advanced Platinum Alloy Electrocatalysts for the Oxygen Reduction Reaction. ACS Catalysis, 2012, 2, 891-898.	5.5	403

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19	FePt and CoPt Nanowires as Efficient Catalysts for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2013, 52, 3465-3468.	7.2	389
20	Facet-dependent active sites of a single Cu2O particle photocatalyst for CO2 reduction to methanol. Nature Energy, 2019, 4, 957-968.	19.8	349
21	High-Performance Rh₂P Electrocatalyst for Efficient Water Splitting. Journal of the American Chemical Society, 2017, 139, 5494-5502.	6.6	343
22	Using Surface Segregation To Design Stable Ruâ€Ir Oxides for the Oxygen Evolution Reaction in Acidic Environments. Angewandte Chemie - International Edition, 2014, 53, 14016-14021.	7.2	331
23	Mesostructured thin films as electrocatalysts with tunable composition and surface morphology. Nature Materials, 2012, 11, 1051-1058.	13.3	323
24	Nanostructured Bilayered Vanadium Oxide Electrodes for Rechargeable Sodium-Ion Batteries. ACS Nano, 2012, 6, 530-538.	7.3	313
25	Enhanced electrocatalysis of the oxygen reduction reaction based on patterning of platinum surfaces with cyanide. Nature Chemistry, 2010, 2, 880-885.	6.6	284
26	Unique Electrochemical Adsorption Properties of Ptâ€Skin Surfaces. Angewandte Chemie - International Edition, 2012, 51, 3139-3142.	7.2	264
27	Functional links between stability and reactivity of strontium ruthenate single crystals during oxygen evolution. Nature Communications, 2014, 5, 4191.	5.8	252
28	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. Nature Communications, 2017, 8, 1449.	5.8	250
29	Mechanism of Zn Insertion into Nanostructured Î´-MnO₂: A Nonaqueous Rechargeable Zn Metal Battery. Chemistry of Materials, 2017, 29, 4874-4884.	3.2	225
30	Correlation Between Surface Chemistry and Electrocatalytic Properties of Monodisperse Pt_{<i>x</i>}Ni_{1â€<i>x</i>} Nanoparticles. Advanced Functional Materials, 2011, 21, 147-152.	7.8	218
31	Functional links between Pt single crystal morphology and nanoparticles with different size and shape: the oxygen reduction reaction case. Energy and Environmental Science, 2014, 7, 4061-4069.	15.6	205
32	Atomic Structure of Pt₃Ni Nanoframe Electrocatalysts by <i>in Situ</i> X-ray Absorption Spectroscopy. Journal of the American Chemical Society, 2015, 137, 15817-15824.	6.6	197
33	Relationships between Atomic Level Surface Structure and Stability/Activity of Platinum Surface Atoms in Aqueous Environments. ACS Catalysis, 2016, 6, 2536-2544.	5.5	196
34	Monodisperse Pt₃Co Nanoparticles as a Catalyst for the Oxygen Reduction Reaction: Size-Dependent Activity. Journal of Physical Chemistry C, 2009, 113, 19365-19368.	1.5	192
35	Nanostructured Layered Cathode for Rechargeable Mg-Ion Batteries. ACS Nano, 2015, 9, 8194-8205.	7.3	181
36	Three Phase Interfaces at Electrified Metalâˆ'Solid Electrolyte Systems 1. Study of the Pt(<i>hkl</i>)âˆ'Nafion Interface. Journal of Physical Chemistry C, 2010, 114, 8414-8422.	1.5	179

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37	On the importance of correcting for the uncompensated Ohmic resistance in model experiments of the Oxygen Reduction Reaction. Journal of Electroanalytical Chemistry, 2010, 647, 29-34.	1.9	177
38	Recent advances in the design of tailored nanomaterials for efficient oxygen reduction reaction. Nano Energy, 2016, 29, 149-165.	8.2	177
39	Activation Energies for Oxygen Reduction on Platinum Alloys:Â Theory and Experiment. Journal of Physical Chemistry B, 2005, 109, 1198-1203.	1.2	176
40	Control of Architecture in Rhombic Dodecahedral Ptâ€“Ni Nanoframe Electrocatalysts. Journal of the American Chemical Society, 2017, 139, 11678-11681.	6.6	166
41	Oxygen Reduction Reaction at Threeâ€Phase Interfaces. ChemPhysChem, 2010, 11, 2825-2833.	1.0	165
42	Surface faceting and elemental diffusion behaviour at atomic scale for alloy nanoparticles during in situ annealing. Nature Communications, 2015, 6, 8925.	5.8	159
43	Dynamically Stable Active Sites from Surface Evolution of Perovskite Materials during the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2021, 143, 2741-2750.	6.6	156
44	Selective catalysts for the hydrogen oxidation and oxygen reduction reactions by patterning of platinum with calix[4]arene molecules. Nature Materials, 2010, 9, 998-1003.	13.3	151
45	Tuning the Reversibility of Mg Anodes via Controlled Surface Passivation by H₂O/Cl^{â€“} in Organic Electrolytes. Chemistry of Materials, 2016, 28, 8268-8277.	3.2	147
46	Multimetallic Core/Interlayer/Shell Nanostructures as Advanced Electrocatalysts. Nano Letters, 2014, 14, 6361-6367.	4.5	146
47	Rational Synthesis of Heterostructured Nanoparticles with Morphology Control. Journal of the American Chemical Society, 2010, 132, 6524-6529.	6.6	145
48	Unique Activity of Platinum Adislands in the CO Electrooxidation Reaction. Journal of the American Chemical Society, 2008, 130, 15332-15339.	6.6	142
49	Electrocatalysis of the HER in acid and alkaline media. Journal of the Serbian Chemical Society, 2013, 78, 2007-2015.	0.4	141
50	Past, present, and future of leadâ€“acid batteries. Science, 2020, 369, 923-924.	6.0	135
51	Shaping electrocatalysis through tailored nanomaterials. Nano Today, 2016, 11, 587-600.	6.2	133
52	Rational Development of Ternary Alloy Electrocatalysts. Journal of Physical Chemistry Letters, 2012, 3, 1668-1673.	2.1	130
53	Electrocatalytic transformation of HF impurity to H2 and LiF in lithium-ion batteries. Nature Catalysis, 2018, 1, 255-262.	16.1	128
54	Surface Chemistry on Bimetallic Alloy Surfaces:Â Adsorption of Anions and Oxidation of CO on Pt3Sn(111). Journal of the American Chemical Society, 2003, 125, 2736-2745.	6.6	127

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55	Eliminating dissolution of platinum-based electrocatalysts at the atomic scale. Nature Materials, 2020, 19, 1207-1214.	13.3	127
56	Best Practices in Pursuit of Topics in Heterogeneous Electrocatalysis. ACS Catalysis, 2017, 7, 6392-6393.	5.5	126
57	Monodisperse Pt3Co nanoparticles as electrocatalyst: the effects of particle size and pretreatment on electrocatalytic reduction of oxygen. Physical Chemistry Chemical Physics, 2010, 12, 6933.	1.3	124
58	Synthesis of Homogeneous Pt-Bimetallic Nanoparticles as Highly Efficient Electrocatalysts. ACS Catalysis, 2011, 1, 1355-1359.	5.5	124
59	Best Practices and Testing Protocols for Benchmarking ORR Activities of Fuel Cell Electrocatalysts Using Rotating Disk Electrode. Electrocatalysis, 2017, 8, 366-374.	1.5	121
60	A study of electronic structures of Pt3M (M=Ti,V,Cr,Fe,Co,Ni) polycrystalline alloys with valence-band photoemission spectroscopy. Journal of Chemical Physics, 2005, 123, 204717.	1.2	113
61	Impact of Catalyst Ink Dispersing Methodology on Fuel Cell Performance Using in-Situ X-ray Scattering. ACS Applied Energy Materials, 2019, 2, 6417-6427.	2.5	104
62	Platinum-alloy nanostructured thin film catalysts for the oxygen reduction reaction. Electrochimica Acta, 2011, 56, 8695-8699.	2.6	101
63	Synthesis of Pt₃Sn Alloy Nanoparticles and Their Catalysis for Electro-Oxidation of CO and Methanol. ACS Catalysis, 2011, 1, 1719-1723.	5.5	98
64	Surfactant-Induced Postsynthetic Modulation of Pd Nanoparticle Crystallinity. Nano Letters, 2011, 11, 1614-1617.	4.5	98
65	Water as a Promoter and Catalyst for Dioxygen Electrochemistry in Aqueous and Organic Media. ACS Catalysis, 2015, 5, 6600-6607.	5.5	98
66	Activityâ€“stability relationship in the surface electrochemistry of the oxygen evolution reaction. Faraday Discussions, 2014, 176, 125-133.	1.6	83
67	Selective electrocatalysis imparted by metalâ€“insulator transition for durability enhancement of automotive fuel cells. Nature Catalysis, 2020, 3, 639-648.	16.1	79
68	Dynamics of electrochemical Pt dissolution at atomic and molecular levels. Journal of Electroanalytical Chemistry, 2018, 819, 123-129.	1.9	74
69	Hydrogen evolution reaction on copper: Promoting water dissociation by tuning the surface oxophilicity. Electrochemistry Communications, 2019, 100, 30-33.	2.3	72
70	Tailoring the Selectivity and Stability of Chemically Modified Platinum Nanocatalysts To Design Highly Durable Anodes for PEM Fuel Cells. Angewandte Chemie - International Edition, 2011, 50, 5468-5472.	7.2	70
71	Double layer effects in electrocatalysis: The oxygen reduction reaction and ethanol oxidation reaction on Au(1 1 1), Pt(1 1 1) and Ir(1 1 1) in alkaline media containing Na and Li cations. Catalysis Today, 2016, 262, 41-47.	2.2	67
72	Binary Transition-Metal Oxide Hollow Nanoparticles for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2018, 10, 24715-24724.	4.0	60

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73	Segregation and stability at Pt3Ni(111) surfaces and Pt75Ni25 nanoparticles. Electrochimica Acta, 2008, 53, 6076-6080.	2.6	57
74	Relationship between the Surface Coverage of Spectator Species and the Rate of Electrocatalytic Reactions. Journal of Physical Chemistry C, 2007, 111, 18672-18678.	1.5	55
75	Electronic structure of Pd thin films on Re(0001) studied by high-resolution core-level and valence-band photoemission. Physical Review B, 2005, 71, .	1.1	47
76	Progress in the Development of Oxygen Reduction Reaction Catalysts for Low-Temperature Fuel Cells. Annual Review of Chemical and Biomolecular Engineering, 2016, 7, 509-532.	3.3	46
77	Electrokinetic Analysis of Poorly Conductive Electrocatalytic Materials. ACS Catalysis, 2020, 10, 4990-4996.	5.5	43
78	Role of Transition Metal in Fast Oxidation Reaction on the Pt₃TM (111) (TM = Ni, Co) Surfaces. Advanced Energy Materials, 2013, 3, 1257-1261.	10.2	36
79	Structure and stereochemistry of electrochemically synthesized poly-(l-naphthylamine) from neutral aceto- nitrile solution. Journal of the Serbian Chemical Society, 2002, 67, 867-877.	0.4	35
80	Ultrafine Pt cluster and RuO₂ heterojunction anode catalysts designed for ultra-low Pt-loading anion exchange membrane fuel cells. Nanoscale Horizons, 2020, 5, 316-324.	4.1	34
81	Employing the Dynamics of the Electrochemical Interface in Aqueous Zincâ€Ion Battery Cathodes. Advanced Functional Materials, 2021, 31, 2102135.	7.8	34
82	Surface processes and electrocatalysis on the Pt(hkl)/Bi-solution interface. Physical Chemistry Chemical Physics, 2001, 3, 3879-3890.	1.3	30
83	Improved Rate for the Oxygen Reduction Reaction in a Sulfuric Acid Electrolyte using a Pt(111) Surface Modified with Melamine. ACS Applied Materials & Interfaces, 2021, 13, 3369-3376.	4.0	29
84	When Small is Big: The Role of Impurities in Electrocatalysis. Topics in Catalysis, 2015, 58, 1174-1180.	1.3	26
85	Organic Electrosynthesis: When Is It Electrocatalysis?. ACS Catalysis, 2020, 10, 13156-13158.	5.5	26
86	Surface spectators and their role in relationships between activity and selectivity of the oxygen reduction reaction in acid environments. Electrochemistry Communications, 2015, 60, 30-33.	2.3	25
87	Superoxide (Electro)Chemistry on Well-Defined Surfaces in Organic Environments. Journal of Physical Chemistry C, 2016, 120, 15909-15914.	1.5	25
88	From ultra-high vacuum to the electrochemical interface: X-ray scattering studies of model electrocatalysts. Faraday Discussions, 2008, 140, 41-58.	1.6	24
89	Temperature-Induced Ordering of Metal/Adsorbate Structures at Electrochemical Interfaces. Journal of the American Chemical Society, 2009, 131, 7654-7661.	6.6	24
90	Thin Film Approach to Single Crystalline Electrochemistry. Journal of Physical Chemistry C, 2013, 117, 23790-23796.	1.5	22

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91	Role of structural hydroxyl groups in enhancing performance of electrochemically-synthesized bilayer V2O5. Nano Energy, 2018, 53, 449-457.	8.2	21
92	Cross-linked Heterogeneous Nanoparticles as Bifunctional Probe. Chemistry of Materials, 2012, 24, 2423-2425.	3.2	17
93	Real-Time Monitoring of Cation Dissolution/Deintercalation Kinetics from Transition-Metal Oxides in Organic Environments. Journal of Physical Chemistry Letters, 2018, 9, 4935-4940.	2.1	15
94	A photoemission study of Pd ultrathin films on Pt (111). Journal of Chemical Physics, 2005, 122, 184712.	1.2	14
95	Undecylprodigiosin conjugated monodisperse gold nanoparticles efficiently cause apoptosis in colon cancer cells in vitro. Journal of Materials Chemistry B, 2014, 2, 3271-3281.	2.9	10
96	Role of preferential weak hybridization between the surface-state of a metal and the oxygen atom in the chemical adsorption mechanism. Physical Chemistry Chemical Physics, 2013, 15, 19019.	1.3	8
97	Excellence <i>versus</i> Diversity? Not an Either/Or Choice. ACS Catalysis, 2020, 10, 7310-7311.	5.5	4
98	Unusual Reduction of Graphene Oxide by Titanium Dioxide Electrons Produced by Ionizing Radiation: Reaction Products and Mechanism. Journal of Physical Chemistry C, 2020, 124, 5425-5435.	1.5	4
99	Structural modifications of Cu(II) 12-tungstophosphoric acid salit studied by IR and Raman spectroscopy. Journal of the Serbian Chemical Society, 2000, 65, 407-415.	0.4	4
100	Single crystalline thin films as a novel class of electrocatalysts. Journal of the Serbian Chemical Society, 2013, 78, 1689-1702.	0.4	3
101	Electrochemistry at Well-Characterized Bimetallic Surfaces. , 0, , 245-269.		2
102	Turning Catalysts on by Lightâ€Induced Stress: When Red Means Go. ChemElectroChem, 2019, 6, 3264-3267.	1.7	2
103	Detection of protons using the rotating ring disk electrode method during electrochemical oxidation of battery electrolytes. Electrochemistry Communications, 2020, 120, 106785.	2.3	1
104	Catalysis at Bimetallic Electrochemical Interfaces. , 2010, , 51-73.		1
105	Fine Tuning of Activity for Nanoscale Catalysts. ECS Transactions, 2008, 16, 1151-1160.	0.3	0
106	Frontispiece: Using Surface Segregation To Design Stable Ru-Ir Oxides for the Oxygen Evolution Reaction in Acidic Environments. Angewandte Chemie - International Edition, 2014, 53, n/a-n/a.	7.2	0
107	Atomic-scale Imaging of PGM-free Catalyst Active Sites by 30 keV 4D-STEM. Microscopy and Microanalysis, 2021, 27, 2976-2977.	0.2	0