Vojislav R Stamenkovic

List of Publications by Year
in descending order

107 papers	34,023 citations	12303 69 h-index	22764 112 g-index
120 all docs	120 docs citations	120 times ranked	23679 citing authors

#	Article	IF	Citations
1	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
2	Employing the Dynamics of the Electrochemical Interface in Aqueous Zincâ€Ion Battery Cathodes. Advanced Functional Materials, 2021, 31, 2102135.	7.8	34
3	Atomic-scale Imaging of PGM-free Catalyst Active Sites by 30 keV 4D-STEM. Microscopy and Microanalysis, 2021, 27, 2976-2977.	0.2	0
4	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
5	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
6	Eliminating dissolution of platinum-based electrocatalysts at the atomic scale. Nature Materials, 2020, 19, 1207-1214.	13.3	127
7	Past, present, and future of leadâ€“acid batteries. Science, 2020, 369, 923-924.	6.0	135
8	Organic Electrosynthesis: When Is It Electrocatalysis?. ACS Catalysis, 2020, 10, 13156-13158.	5.5	26
9	Excellence <i>versus</i> Diversity? Not an Either/Or Choice. ACS Catalysis, 2020, 10, 7310-7311.	5.5	4
10	Dynamic stability of active sites in hydr(oxy)oxides for the oxygen evolution reaction. Nature Energy, 2020, 5, 222-230.	19.8	540
11	Selective electrocatalysis imparted by metalâ€“insulator transition for durability enhancement of automotive fuel cells. Nature Catalysis, 2020, 3, 639-648.	16.1	79
12	Detection of protons using the rotating ring disk electrode method during electrochemical oxidation of battery electrolytes. Electrochemistry Communications, 2020, 120, 106785.	2.3	1
13	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
14	Electrokinetic Analysis of Poorly Conductive Electrocatalytic Materials. ACS Catalysis, 2020, 10, 4990-4996.	5.5	43
15	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
16	Turning Catalysts on by Lightâ€Induced Stress: When Red Means Go. ChemElectroChem, 2019, 6, 3264-3267.	1.7	2
17	Facet-dependent active sites of a single Cu2O particle photocatalyst for CO2 reduction to methanol. Nature Energy, 2019, 4, 957-968.	19.8	349
18	Hydrogen evolution reaction on copper: Promoting water dissociation by tuning the surface oxophilicity. Electrochemistry Communications, 2019, 100, 30-33.	2.3	72

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19	Electrocatalytic transformation of HF impurity to H2 and LiF in lithium-ion batteries. Nature Catalysis, 2018, 1, 255-262.	16.1	128
20	Dynamics of electrochemical Pt dissolution at atomic and molecular levels. Journal of Electroanalytical Chemistry, 2018, 819, 123-129.	1.9	74
21	Role of structural hydroxyl groups in enhancing performance of electrochemically-synthesized bilayer V2O5. Nano Energy, 2018, 53, 449-457.	8.2	21
22	Binary Transition-Metal Oxide Hollow Nanoparticles for Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2018, 10, 24715-24724.	4.0	60
23	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
24	Mechanism of Zn Insertion into Nanostructured Î´-MnO₂: A Nonaqueous Rechargeable Zn Metal Battery. Chemistry of Materials, 2017, 29, 4874-4884.	3.2	225
25	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
26	High-Performance Rh₂P Electrocatalyst for Efficient Water Splitting. Journal of the American Chemical Society, 2017, 139, 5494-5502.	6.6	343
27	Energy and fuels from electrochemical interfaces. Nature Materials, 2017, 16, 57-69.	13.3	1,484
28	Best Practices in Pursuit of Topics in Heterogeneous Electrocatalysis. ACS Catalysis, 2017, 7, 6392-6393.	5.5	126
29	Control of Architecture in Rhombic Dodecahedral Ptâ€"Ni Nanoframe Electrocatalysts. Journal of the American Chemical Society, 2017, 139, 11678-11681.	6.6	166
30	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. Nature Communications, 2017, 8, 1449.	5.8	250
31	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
32	Recent advances in the design of tailored nanomaterials for efficient oxygen reduction reaction. Nano Energy, 2016, 29, 149-165.	8.2	177
33	Design principles for hydrogen evolution reaction catalyst materials. Nano Energy, 2016, 29, 29-36.	8.2	629
34	Shaping electrocatalysis through tailored nanomaterials. Nano Today, 2016, 11, 587-600.	6.2	133
35	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
36	Superoxide (Electro)Chemistry on Well-Defined Surfaces in Organic Environments. Journal of Physical Chemistry C, 2016, 120, 15909-15914.	1.5	25

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37	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
38	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
39	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
40	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
41	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
42	Nanostructured Layered Cathode for Rechargeable Mg-Ion Batteries. ACS Nano, 2015, 9, 8194-8205.	7.3	181
43	Water as a Promoter and Catalyst for Dioxygen Electrochemistry in Aqueous and Organic Media. ACS Catalysis, 2015, 5, 6600-6607.	5.5	98
44	When Small is Big: The Role of Impurities in Electrocatalysis. Topics in Catalysis, 2015, 58, 1174-1180.	1.3	26
45	Surface faceting and elemental diffusion behaviour at atomic scale for alloy nanoparticles during in situ annealing. Nature Communications, 2015, 6, 8925.	5.8	159
46	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
47	Activityâ€"stability relationship in the surface electrochemistry of the oxygen evolution reaction. Faraday Discussions, 2014, 176, 125-133.	1.6	83
48	Highly Crystalline Multimetallic Nanoframes with Three-Dimensional Electrocatalytic Surfaces. Science, 2014, 343, 1339-1343.	6.0	2,376
49	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
50	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
51	Multimetallic Core/Interlayer/Shell Nanostructures as Advanced Electrocatalysts. Nano Letters, 2014, 14, 6361-6367.	4.5	146
52	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
53	Functional links between stability and reactivity of strontium ruthenate single crystals during oxygen evolution. Nature Communications, 2014, 5, 4191.	5.8	252
54	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

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55	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
56	FePt and CoPt Nanowires as Efficient Catalysts for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2013, 52, 3465-3468.	7.2	389
57	Improving the hydrogen oxidation reaction rate by promotion of hydroxyl adsorption. Nature Chemistry, 2013, 5, 300-306.	6.6	945
58	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
59	Thin Film Approach to Single Crystalline Electrochemistry. Journal of Physical Chemistry C, 2013, 117, 23790-23796.	1.5	22
60	Single crystalline thin films as a novel class of electrocatalysts. Journal of the Serbian Chemical Society, 2013, 78, 1689-1702.	0.4	3
61	Electrocatalysis of the HER in acid and alkaline media. Journal of the Serbian Chemical Society, 2013, 78, 2007-2015.	0.4	141
62	Mesostructured thin films as electrocatalysts with tunable composition and surface morphology. Nature Materials, 2012, 11, 1051-1058.	13.3	323
63	Nanostructured Bilayered Vanadium Oxide Electrodes for Rechargeable Sodium-Ion Batteries. ACS Nano, 2012, 6, 530-538.	7.3	313
64	Cross-linked Heterogeneous Nanoparticles as Bifunctional Probe. Chemistry of Materials, 2012, 24, 2423-2425.	3.2	17
65	Surfactant Removal for Colloidal Nanoparticles from Solution Synthesis: The Effect on Catalytic Performance. ACS Catalysis, 2012, 2, 1358-1362.	5.5	426
66	Rational Development of Ternary Alloy Electrocatalysts. Journal of Physical Chemistry Letters, 2012, 3, 1668-1673.	2.1	130
67	Advanced Platinum Alloy Electrocatalysts for the Oxygen Reduction Reaction. ACS Catalysis, 2012, 2, 891-898.	5.5	403
68	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
69	Unique Electrochemical Adsorption Properties of Ptâ€Skin Surfaces. Angewandte Chemie - International Edition, 2012, 51, 3139-3142.	7.2	264
70	Synthesis of Pt₃Sn Alloy Nanoparticles and Their Catalysis for Electro-Oxidation of CO and Methanol. ACS Catalysis, 2011, 1, 1719-1723.	5.5	98
71	Enhancing Hydrogen Evolution Activity in Water Splitting by Tailoring Li ⁺ -Ni(OH) ₂ -Pt Interfaces. Science, 2011, 334, 1256-1260.	6.0	2,385
72	Multimetallic Au/FePt₃ Nanoparticles as Highly Durable Electrocatalyst. Nano Letters, 2011, 11, 919-926.	4.5	435

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73	Design and Synthesis of Bimetallic Electrocatalyst with Multilayered Pt-Skin Surfaces. Journal of the American Chemical Society, 2011, 133, 14396-14403.	6.6	541
74	Surfactant-Induced Postsynthetic Modulation of Pd Nanoparticle Crystallinity. Nano Letters, 2011, 11, 1614-1617.	4.5	98
75	Synthesis of Homogeneous Pt-Bimetallic Nanoparticles as Highly Efficient Electrocatalysts. ACS Catalysis, 2011, 1, 1355-1359.	5.5	124
76	Platinum-alloy nanostructured thin film catalysts for the oxygen reduction reaction. Electrochimica Acta, 2011, 56, 8695-8699.	2.6	101
77	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
78	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
79	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
80	Oxygen Reduction Reaction at Threeâ€Phase Interfaces. ChemPhysChem, 2010, 11, 2825-2833.	1.0	165
81	Enhanced electrocatalysis of the oxygen reduction reaction based on patterning of platinum surfaces with cyanide. Nature Chemistry, 2010, 2, 880-885.	6.6	284
82	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
83	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
84	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
85	Rational Synthesis of Heterostructured Nanoparticles with Morphology Control. Journal of the American Chemical Society, 2010, 132, 6524-6529.	6.6	145
86	Catalysis at Bimetallic Electrochemical Interfaces. , 2010, , 51-73.		1
87	Temperature-Induced Ordering of Metal/Adsorbate Structures at Electrochemical Interfaces. Journal of the American Chemical Society, 2009, 131, 7654-7661.	6.6	24
88	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
89	Segregation and stability at Pt3Ni(111) surfaces and Pt75Ni25 nanoparticles. Electrochimica Acta, 2008, 53, 6076-6080.	2.6	57
90	Unique Activity of Platinum Adislands in the CO Electrooxidation Reaction. Journal of the American Chemical Society, 2008, 130, 15332-15339.	6.6	142

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91	Fine Tuning of Activity for Nanoscale Catalysts. ECS Transactions, 2008, 16, 1151-1160.	0.3	0
92	From ultra-high vacuum to the electrochemical interface: X-ray scattering studies of model electrocatalysts. Faraday Discussions, 2008, 140, 41-58.	1.6	24
93	Trends in electrocatalysis on extended and nanoscale Pt-bimetallic alloy surfaces. Nature Materials, 2007, 6, 241-247.	13.3	2,902
94	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
95	Improved Oxygen Reduction Activity on Pt3Ni(111) via Increased Surface Site Availability. Science, 2007, 315, 493-497.	6.0	3,924
96	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
97	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
98	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
99	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
100	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
101	A photoemission study of Pd ultrathin films on Pt (111). Journal of Chemical Physics, 2005, 122, 184712.	1.2	14
102	Activation Energies for Oxygen Reduction on Platinum Alloys:Â Theory and Experiment. Journal of Physical Chemistry B, 2005, 109, 1198-1203.	1.2	176
103	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
104	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
105	Surface processes and electrocatalysis on the Pt(hkl)/Bi-solution interface. Physical Chemistry Chemical Physics, 2001, 3, 3879-3890.	1.3	30
106	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
107	Electrochemistry at Well-Characterized Bimetallic Surfaces. , 0, , 245-269.		2