Vojislav R Stamenkovic

List of Publications by Citations

107 papers	27,580 citations	64 h-index	120 g-index
120 ext. papers	30,933 ext. citations	13.2 avg, IF	6.93 L-index

#	Paper	IF	Citations
107	Improved oxygen reduction activity on Pt3Ni(111) via increased surface site availability. *Science*, **2007**, 315, 493-7	33.3	3460
106	Trends in electrocatalysis on extended and nanoscale Pt-bimetallic alloy surfaces. *Nature Materials*, **2007**, 6, 241-7	27	2553
105	Highly crystalline multimetallic nanoframes with three-dimensional electrocatalytic surfaces. *Science*, **2014**, 343, 1339-43	33.3	1989
104	Trends in activity for the water electrolyser reactions on 3d M(Ni,Co,Fe,Mn) hydr(oxy)oxide catalysts. *Nature Materials*, **2012**, 11, 550-7	27	1910
103	Enhancing hydrogen evolution activity in water splitting by tailoring Li+-Ni(OH)₂-Pt interfaces. *Science*, **2011**, 334, 1256-60	33.3	1808
102	Changing the activity of electrocatalysts for oxygen reduction by tuning the surface electronic structure. *Angewandte Chemie - International Edition*, **2006**, 45, 2897-901	16.4	1451
101	Energy and fuels from electrochemical interfaces. *Nature Materials*, **2016**, 16, 57-69	27	1064
100	Effect of surface composition on electronic structure, stability, and electrocatalytic properties of Pt-transition metal alloys: Pt-skin versus Pt-skeleton surfaces. *Journal of the American Chemical Society*, **2006**, 128, 8813-9	16.4	799
99	Design of active and stable Co-Mo-Sx chalcogels as pH-universal catalysts for the hydrogen evolution reaction. *Nature Materials*, **2016**, 15, 197-203	27	683
98	Improving the hydrogen oxidation reaction rate by promotion of hydroxyl adsorption. *Nature Chemistry*, **2013**, 5, 300-6	17.6	675
97	Design and synthesis of bimetallic electrocatalyst with multilayered Pt-skin surfaces. *Journal of the American Chemical Society*, **2011**, 133, 14396-403	16.4	489
96	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, 6819-29	16.4	463
95	Design principles for hydrogen evolution reaction catalyst materials. *Nano Energy*, **2016**, 29, 29-36	17.1	437
94	Activity-Stability Trends for the Oxygen Evolution Reaction on Monometallic Oxides in Acidic Environments. *Journal of Physical Chemistry Letters*, **2014**, 5, 2474-8	6.4	416
93	Multimetallic Au/FePt3 nanoparticles as highly durable electrocatalyst. *Nano Letters*, **2011**, 11, 919-26	11.5	400
92	FePt and CoPt nanowires as efficient catalysts for the oxygen reduction reaction. *Angewandte Chemie - International Edition*, **2013**, 52, 3465-8	16.4	361
91	Surfactant Removal for Colloidal Nanoparticles from Solution Synthesis: The Effect on Catalytic Performance. *ACS Catalysis*, **2012**, 2, 1358-1362	13.1	361

90	Advanced Platinum Alloy Electrocatalysts for the Oxygen Reduction Reaction. *ACS Catalysis*, **2012**, 2, 891-898	13.1	352
89	Mesostructured thin films as electrocatalysts with tunable composition and surface morphology. *Nature Materials*, **2012**, 11, 1051-8	27	286
88	Nanostructured bilayered vanadium oxide electrodes for rechargeable sodium-ion batteries. *ACS Nano*, **2012**, 6, 530-8	16.7	279
87	High-Performance RhP Electrocatalyst for Efficient Water Splitting. *Journal of the American Chemical Society*, **2017**, 139, 5494-5502	16.4	267
86	Using surface segregation to design stable Ru-Ir oxides for the oxygen evolution reaction in acidic environments. *Angewandte Chemie - International Edition*, **2014**, 53, 14016-21	16.4	260
85	Enhanced electrocatalysis of the oxygen reduction reaction based on patterning of platinum surfaces with cyanide. *Nature Chemistry*, **2010**, 2, 880-5	17.6	243
84	Dynamic stability of active sites in hydr(oxy)oxides for the oxygen evolution reaction. *Nature Energy* , **2020**, 5, 222-230	62.3	241
83	Unique electrochemical adsorption properties of Pt-skin surfaces. *Angewandte Chemie - International Edition*, **2012**, 51, 3139-42	16.4	221
82	Functional links between stability and reactivity of strontium ruthenate single crystals during oxygen evolution. *Nature Communications*, **2014**, 5, 4191	17.4	208
81	Correlation Between Surface Chemistry and Electrocatalytic Properties of Monodisperse PtxNi1-x Nanoparticles. *Advanced Functional Materials*, **2011**, 21, 147-152	15.6	204
80	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	35.4	176
79	Monodisperse Pt3Co Nanoparticles as a Catalyst for the Oxygen Reduction Reaction: Size-Dependent Activity. *Journal of Physical Chemistry C*, **2009**, 113, 19365-19368	3.8	175
78	Mechanism of Zn Insertion into Nanostructured δMnO2: A Nonaqueous Rechargeable Zn Metal Battery. *Chemistry of Materials*, **2017**, 29, 4874-4884	9.6	171
77	Facet-dependent active sites of a single Cu2O particle photocatalyst for CO2 reduction to methanol. *Nature Energy*, **2019**, 4, 957-968	62.3	170
76	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. *Nature Communications*, **2017**, 8, 1449	17.4	168
75	Atomic Structure of Pt3Ni Nanoframe Electrocatalysts by in Situ X-ray Absorption Spectroscopy. *Journal of the American Chemical Society*, **2015**, 137, 15817-24	16.4	163
74	Recent advances in the design of tailored nanomaterials for efficient oxygen reduction reaction. *Nano Energy*, **2016**, 29, 149-165	17.1	162
73	Activation energies for oxygen reduction on platinum alloys: theory and experiment. *Journal of Physical Chemistry B*, **2005**, 109, 1198-203	3.4	160

72	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	4.1	155
71	Relationships between Atomic Level Surface Structure and Stability/Activity of Platinum Surface Atoms in Aqueous Environments. *ACS Catalysis*, **2016**, 6, 2536-2544	13.1	146
70	Nanostructured Layered Cathode for Rechargeable Mg-Ion Batteries. *ACS Nano*, **2015**, 9, 8194-205	16.7	144
69	Three Phase Interfaces at Electrified Metal□Solid Electrolyte Systems 1. Study of the Pt(hkl)□Nafion Interface. *Journal of Physical Chemistry C*, **2010**, 114, 8414-8422	3.8	143
68	Control of Architecture in Rhombic Dodecahedral Pt-Ni Nanoframe Electrocatalysts. *Journal of the American Chemical Society*, **2017**, 139, 11678-11681	16.4	140
67	Unique activity of platinum adislands in the CO electrooxidation reaction. *Journal of the American Chemical Society*, **2008**, 130, 15332-9	16.4	135
66	Rational synthesis of heterostructured nanoparticles with morphology control. *Journal of the American Chemical Society*, **2010**, 132, 6524-9	16.4	134
65	Surface faceting and elemental diffusion behaviour at atomic scale for alloy nanoparticles during in situ annealing. *Nature Communications*, **2015**, 6, 8925	17.4	132
64	Multimetallic core/interlayer/shell nanostructures as advanced electrocatalysts. *Nano Letters*, **2014**, 14, 6361-7	11.5	127
63	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	27	125
62	Oxygen reduction reaction at three-phase interfaces. *ChemPhysChem*, **2010**, 11, 2825-33	3.2	125
61	Rational Development of Ternary Alloy Electrocatalysts. *Journal of Physical Chemistry Letters*, **2012**, 3, 1668-73	6.4	116
60	Monodisperse Pt(3)Co nanoparticles as electrocatalyst: the effects of particle size and pretreatment on electrocatalytic reduction of oxygen. *Physical Chemistry Chemical Physics*, **2010**, 12, 6933-9	3.6	114
59	Shaping electrocatalysis through tailored nanomaterials. *Nano Today*, **2016**, 11, 587-600	17.9	114
58	Synthesis of Homogeneous Pt-Bimetallic Nanoparticles as Highly Efficient Electrocatalysts. *ACS Catalysis*, **2011**, 1, 1355-1359	13.1	111
57	Surface chemistry on bimetallic alloy surfaces: adsorption of anions and oxidation of CO on Pt3Sn(111). *Journal of the American Chemical Society*, **2003**, 125, 2736-45	16.4	111
56	Electrocatalysis of the HER in acid and alkaline media. *Journal of the Serbian Chemical Society*, **2013**, 78, 2007-2015	0.9	103
55	Tuning the Reversibility of Mg Anodes via Controlled Surface Passivation by H2O/Cl□in Organic Electrolytes. *Chemistry of Materials*, **2016**, 28, 8268-8277	9.6	94

54	Platinum-alloy nanostructured thin film catalysts for the oxygen reduction reaction. *Electrochimica Acta*, **2011**, 56, 8695-8699	6.7	94
53	Water as a Promoter and Catalyst for Dioxygen Electrochemistry in Aqueous and Organic Media. *ACS Catalysis*, **2015**, 5, 6600-6607	13.1	92
52	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	3.9	91
51	Unique Electrochemical Adsorption Properties of Pt-Skin Surfaces. *Angewandte Chemie*, **2012**, 124, 3193-3196	3.6	88
50	Synthesis of Pt3Sn Alloy Nanoparticles and Their Catalysis for Electro-Oxidation of CO and Methanol. *ACS Catalysis*, **2011**, 1, 1719-1723	13.1	87
49	Surfactant-induced postsynthetic modulation of Pd nanoparticle crystallinity. *Nano Letters*, **2011**, 11, 1614-7	11.5	87
48	Best Practices and Testing Protocols for Benchmarking ORR Activities of Fuel Cell Electrocatalysts Using Rotating Disk Electrode. *Electrocatalysis*, **2017**, 8, 366-374	2.7	83
47	Electrocatalytic transformation of HF impurity to H2 and LiF in lithium-ion batteries. *Nature Catalysis*, **2018**, 1, 255-262	36.5	83
46	Impact of Catalyst Ink Dispersing Methodology on Fuel Cell Performance Using in-Situ X-ray Scattering. *ACS Applied Energy Materials*, **2019**, 2, 6417-6427	6.1	65
45	Activity-stability relationship in the surface electrochemistry of the oxygen evolution reaction. *Faraday Discussions*, **2014**, 176, 125-33	3.6	65
44	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	5.3	61
43	FePt and CoPt Nanowires as Efficient Catalysts for the Oxygen Reduction Reaction. *Angewandte Chemie*, **2013**, 125, 3549-3552	3.6	59
42	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, 5468-72	16.4	58
41	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	16.4	58
40	Eliminating dissolution of platinum-based electrocatalysts at the atomic scale. *Nature Materials*, **2020**, 19, 1207-1214	27	57
39	Segregation and stability at Pt3Ni(111) surfaces and Pt75Ni25 nanoparticles. *Electrochimica Acta*, **2008**, 53, 6076-6080	6.7	53
38	Relationship between the Surface Coverage of Spectator Species and the Rate of Electrocatalytic Reactions. *Journal of Physical Chemistry C*, **2007**, 111, 18672-18678	3.8	52
37	Hydrogen evolution reaction on copper: Promoting water dissociation by tuning the surface oxophilicity. *Electrochemistry Communications*, **2019**, 100, 30-33	5.1	52

36	Dynamics of electrochemical Pt dissolution at atomic and molecular levels. *Journal of Electroanalytical Chemistry*, **2018**, 819, 123-129	4.1	51
35	Binary Transition-Metal Oxide Hollow Nanoparticles for Oxygen Evolution Reaction. *ACS Applied Materials & Interfaces*, **2018**, 10, 24715-24724	9.5	47
34	Electronic structure of Pd thin films on Re(0001) studied by high-resolution core-level and valence-band photoemission. *Physical Review B*, **2005**, 71,	3.3	44
33	Progress in the Development of Oxygen Reduction Reaction Catalysts for Low-Temperature Fuel Cells. *Annual Review of Chemical and Biomolecular Engineering*, **2016**, 7, 509-32	8.9	41
32	Past, present, and future of lead-acid batteries. *Science*, **2020**, 369, 923-924	33.3	38
31	Using Surface Segregation To Design Stable Ru-Ir Oxides for the Oxygen Evolution Reaction in Acidic Environments. *Angewandte Chemie*, **2014**, 126, 14240-14245	3.6	37
30	Structure and stereochemistry of electrochemically synthesized poly-(l-naphthylamine) from neutral aceto- nitrile solution. *Journal of the Serbian Chemical Society*, **2002**, 67, 867-877	0.9	33
29	Selective electrocatalysis imparted by metal–insulator transition for durability enhancement of automotive fuel cells. *Nature Catalysis*, **2020**, 3, 639-648	36.5	32
28	Role of Transition Metal in Fast Oxidation Reaction on the Pt3TM (111) (TM = Ni, Co) Surfaces. *Advanced Energy Materials*, **2013**, 3, 1257-1261	21.8	32
27	Surface processes and electrocatalysis on the Pt(hkl)/Bi-solution interface. *Physical Chemistry Chemical Physics*, **2001**, 3, 3879-3890	3.6	26
26	When Small is Big: The Role of Impurities in Electrocatalysis. *Topics in Catalysis*, **2015**, 58, 1174-1180	2.3	23
25	Superoxide (Electro)Chemistry on Well-Defined Surfaces in Organic Environments. *Journal of Physical Chemistry C*, **2016**, 120, 15909-15914	3.8	23
24	From ultra-high vacuum to the electrochemical interface: x-ray scattering studies of model electrocatalysts. *Faraday Discussions*, **2008**, 140, 41-58; discussion 93-112	3.6	22
23	Temperature-induced ordering of metal/adsorbate structures at electrochemical interfaces. *Journal of the American Chemical Society*, **2009**, 131, 7654-61	16.4	22
22	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	10.8	22
21	Electrokinetic Analysis of Poorly Conductive Electrocatalytic Materials. *ACS Catalysis*, **2020**, 10, 4990-4996	13.1	21
20	Thin Film Approach to Single Crystalline Electrochemistry. *Journal of Physical Chemistry C*, **2013**, 117, 23790-23796	3.8	21
19	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	5.1	20

18	Role of structural hydroxyl groups in enhancing performance of electrochemically-synthesized bilayer V2O5. *Nano Energy*, **2018**, 53, 449-457	17.1	17
17	Cross-linked Heterogeneous Nanoparticles as Bifunctional Probe. *Chemistry of Materials*, **2012**, 24, 2423-2425	8.6	16
16	A photoemission study of Pd ultrathin films on Pt (111). *Journal of Chemical Physics*, **2005**, 122, 184712	3.9	13
15	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	9.5	12
14	Real-Time Monitoring of Cation Dissolution/Deintercalation Kinetics from Transition-Metal Oxides in Organic Environments. *Journal of Physical Chemistry Letters*, **2018**, 9, 4935-4940	6.4	11
13	Tailoring the Selectivity and Stability of Chemically Modified Platinum Nanocatalysts To Design Highly Durable Anodes for PEM Fuel Cells. *Angewandte Chemie*, **2011**, 123, 5582-5586	3.6	10
12	Employing the Dynamics of the Electrochemical Interface in Aqueous Zinc-Ion Battery Cathodes. *Advanced Functional Materials*, **2021**, 31, 2102135	15.6	9
11	Undecylprodigiosin conjugated monodisperse gold nanoparticles efficiently cause apoptosis in colon cancer cells in vitro. *Journal of Materials Chemistry B*, **2014**, 2, 3271-3281	7.3	7
10	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, 19019-23	3.6	6
9	Turning Catalysts on by Light-Induced Stress: When Red Means Go. *ChemElectroChem*, **2019**, 6, 3264-3267	4.3	2
8	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	3.8	2
7	Electrochemistry at Well-Characterized Bimetallic Surfaces245-269		2
6	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	0.9	2
5	Detection of protons using the rotating ring disk electrode method during electrochemical oxidation of battery electrolytes. *Electrochemistry Communications*, **2020**, 120, 106785	5.1	1
4	Single crystalline thin films as a novel class of electrocatalysts. *Journal of the Serbian Chemical Society*, **2013**, 78, 1689-1702	0.9	1
3	Catalysis at Bimetallic Electrochemical Interfaces **2010**, 51-73		1
2	Fine Tuning of Activity for Nanoscale Catalysts. *ECS Transactions*, **2009**, 16, 1151-1160	1	
1	Atomic-scale Imaging of PGM-free Catalyst Active Sites by 30 keV 4D-STEM. *Microscopy and Microanalysis*, **2021**, 27, 2976-2977	0.5	