Nicols Alonso Vante

List of Publications by Citations

204 papers	7,333 citations	46 h-index	79 g-index
212 ext. papers	8,019 ext. citations	5.4 avg, IF	6.2 L-index

#	Paper	IF	Citations
204	Iron disulfide for solar energy conversion. *Solar Energy Materials and Solar Cells*, **1993**, 29, 289-370	6.4	464
203	Structure and Electrocatalytic Activity of Carbon-Supported Pt–Ni Alloy Nanoparticles Toward the Oxygen Reduction Reaction. *Journal of Physical Chemistry B*, **2004**, 108, 11024-11034	3.4	281
202	Metal–Support Interactions between Nanosized Pt and Metal Oxides (WO3 and TiO2) Studied Using X-ray Photoelectron Spectroscopy. *Journal of Physical Chemistry C*, **2011**, 115, 20153-20159	3.8	275
201	In situ Free-Surfactant Synthesis and ORR- Electrochemistry of Carbon-Supported Co3S4 and CoSe2 Nanoparticles. *Chemistry of Materials*, **2008**, 20, 26-28	9.6	223
200	Tailoring, Structure, and Activity of Carbon-Supported Nanosized Pt–Cr Alloy Electrocatalysts for Oxygen Reduction in Pure and Methanol-Containing Electrolytes. *Journal of Physical Chemistry B*, **2004**, 108, 1938-1947	3.4	222
199	Methanol tolerant oxygen reduction on carbon-supported Pt–Ni alloy nanoparticles. *Journal of Electroanalytical Chemistry*, **2005**, 576, 305-313	4.1	193
198	Novel low-temperature synthesis of semiconducting transition metal chalcogenide electrocatalyst for multielectron charge transfer: molecular oxygen reduction. *Electrochimica Acta*, **1994**, 39, 1647-1653	6.7	185
197	Oxygen Reduction on Ru[sub 1.92]Mo[sub 0.08]SeO[sub 4], Ru/Carbon, and Pt/Carbon in Pure and Methanol-Containing Electrolytes. *Journal of the Electrochemical Society*, **2000**, 147, 2620	3.9	178
196	Kinetics studies of oxygen reduction in acid medium on novel semiconducting transition metal chalcogenides. *Electrochimica Acta*, **1995**, 40, 567-576	6.7	168
195	Oxygen Reduction Reaction on Ruthenium and Rhodium Nanoparticles Modified with Selenium and Sulfur. *Journal of the Electrochemical Society*, **2006**, 153, A869	3.9	155
194	Nonprecious metal catalysts for the molecular oxygen-reduction reaction. *Physica Status Solidi (B): Basic Research*, **2008**, 245, 1792-1806	1.3	151
193	Activity of platinum-gold alloys for glucose electrooxidation in biofuel cells. *Journal of Physical Chemistry B*, **2007**, 111, 10329-33	3.4	146
192	Semiconductor Photooxidation of Pollutants Dissolved in Water: A Kinetic Model for Distinguishing between Direct and Indirect Interfacial Hole Transfer. I. Photoelectrochemical Experiments with Polycrystalline Anatase Electrodes under Current Doubling and Absence of Recombination. *Journal of Physical Chemistry B*, **2004**, 108, 15172-15181	3.4	138
191	Spectral sensitization of large-band-gap semiconductors (thin films and ceramics) by a carboxylated bis(1,10-phenanthroline)copper(I) complex. *Journal of the Chemical Society Dalton Transactions*, **1994**, 1649		130
190	Electrocatalytic Cobalt Nanoparticles Interacting with Nitrogen-Doped Carbon Nanotube in Situ Generated from a Metal-Organic Framework for the Oxygen Reduction Reaction. *ACS Applied Materials & Interfaces*, **2017**, 9, 2541-2549	9.5	113
189	Oxygen reduction reaction on carbon-supported CoSe2 nanoparticles in an acidic medium. *Electrochimica Acta*, **2009**, 54, 5252-5256	6.7	110
188	Electronic interaction between platinum nanoparticles and nitrogen-doped reduced graphene oxide: effect on the oxygen reduction reaction. *Journal of Materials Chemistry A*, **2015**, 3, 11891-11904	13	108

187	Chalcogenide metal centers for oxygen reduction reaction: Activity and tolerance. *Electrochimica Acta*, **2011**, 56, 1009-1022	6.7	105
186	Selenium becomes metallic in Ru-Se fuel cell catalysts: an EC-NMR and XPS investigation. *Journal of the American Chemical Society*, **2007**, 129, 15140-1	16.4	102
185	Structural and electrochemical studies of Au-Pt nanoalloys. *Physical Chemistry Chemical Physics*, **2009**, 11, 3573-9	3.6	91
184	The structure analysis of the active centers of Ru-containing electrocatalysts for the oxygen reduction. An in situ EXAFS study. *Electrochimica Acta*, **2002**, 47, 3807-3814	6.7	88
183	On the Origin of the Selectivity of Oxygen Reduction of Ruthenium-Containing Electrocatalysts in Methanol-Containing Electrolyte. *Journal of Catalysis*, **2000**, 190, 240-246	7.3	87
182	Platinum and non-platinum nanomaterials for the molecular oxygen reduction reaction. *ChemPhysChem*, **2010**, 11, 2732-44	3.2	80
181	Carbonyl Tailored Electrocatalysts. *Fuel Cells*, **2006**, 6, 182-189	2.9	76
180	Transition metal cluster materials for multi-electron transfer catalysis. *Materials Chemistry and Physics*, **1989**, 22, 281-307	4.4	74
179	Chalcogenide oxygen reduction reaction catalysis: X-ray photoelectron spectroscopy with Ru, Ru/Se and Ru/S samples emersed from aqueous media. *Electrochimica Acta*, **2007**, 52, 5759-5765	6.7	72
178	Substrate effect on oxygen reduction electrocatalysis. *Electrochimica Acta*, **2010**, 55, 7558-7563	6.7	71
177	Enhancing oxygen reduction reaction activity and stability of platinum via oxide-carbon composites. *Catalysis Today*, **2013**, 202, 36-43	5.3	70
176	Synthesis and electrochemical characterization of a novel platinum chalcogenide electrocatalyst with an enhanced tolerance to methanol in the oxygen reduction reaction. *Electrochemistry Communications*, **2006**, 8, 1487-1491	5.1	70
175	Influence of sp(3)-sp(2) Carbon Nanodomains on Metal/Support Interaction, Catalyst Durability, and Catalytic Activity for the Oxygen Reduction Reaction. *ACS Applied Materials & Interfaces*, **2016**, 8, 23260-9	9.5	70
174	Structural Studies and Stability of Cluster-like RuxSey Electrocatalysts. *Journal of Physical Chemistry B*, **2002**, 106, 12152-12157	3.4	69
173	Electro-oxidation of Carbon Monoxide and Methanol on Carbon-Supported PtSn Nanoparticles: a DEMS Study. *Fuel Cells*, **2002**, 2, 109-116	2.9	68
172	Carbon-supported cubic CoSe2 catalysts for oxygen reduction reaction in alkaline medium. *Electrochimica Acta*, **2012**, 72, 129-133	6.7	66
171	Recent Advances of Cobalt-Based Electrocatalysts for Oxygen Electrode Reactions and Hydrogen Evolution Reaction. *Catalysts*, **2018**, 8, 559	4	66
170	Ruthenium cluster-like chalcogenide as a methanol tolerant cathode catalyst in air-breathing laminar flow fuel cells. *Electrochimica Acta*, **2009**, 54, 4384-4388	6.7	65

169	Probing metal substrate interaction of Pt nanoparticles: Structural XRD analysis and oxygen reduction reaction. *Applied Catalysis A: General*, **2010**, 377, 167-173	5.1	63
168	Sequential treatment via Trametes versicolor and UV/TiO2/Ru(x)Se(y) to reduce contaminants in waste water resulting from the bleaching process during paper production. *Chemosphere*, **2007**, 67, 793-801	8.4	62
167	Spectroelectrochemical Probing of the Strong Interaction between Platinum Nanoparticles and Graphitic Domains of Carbon. *ACS Catalysis*, **2013**, 3, 1940-1950	13.1	60
166	High Methanol Tolerance of Carbon-Supported Pt-Cr Alloy Nanoparticle Electrocatalysts for Oxygen Reduction. *Journal of the Electrochemical Society*, **2005**, 152, A704	3.9	60
165	In Situ EXAFS Study To Probe Active Centers of Ru Chalcogenide Electrocatalysts During Oxygen Reduction Reaction. *Journal of Physical Chemistry B*, **2002**, 106, 1670-1676	3.4	60
164	Template-free synthesis of three-dimensional NiFe-LDH hollow microsphere with enhanced OER performance in alkaline media. *Journal of Energy Chemistry*, **2019**, 33, 130-137	12	60
163	Nanostructured platinum becomes alloyed at oxide-composite substrate. *Electrochemistry Communications*, **2010**, 12, 1772-1775	5.1	56
162	Oxygen reduction reaction on nanostructured Pt-based electrocatalysts: A review. *International Journal of Hydrogen Energy*, **2020**, 45, 31775-31797	6.7	53
161	A highly efficient and stable oxygen reduction reaction on Pt/CeOx/C electrocatalyst obtained via a sacrificial precursor based on a metal-organic framework. *Applied Catalysis B: Environmental*, **2016**, 189, 39-50	21.8	53
160	Tolerant chalcogenide cathodes of membraneless micro fuel cells. *ChemSusChem*, **2012**, 5, 1488-94	8.3	48
159	Structure and photoelectrochemical properties of semiconducting rhenium cluster chalcogenides: Re6X8Br2 (X ? S, Se). *Journal of Alloys and Compounds*, **1992**, 178, 305-314	5.7	46
158	Rational defect and anion chemistries in Co3O4 for enhanced oxygen evolution reaction. *Applied Catalysis B: Environmental*, **2021**, 281, 119535	21.8	45
157	The Effect of Support on Advanced Pt-based Cathodes towards the Oxygen Reduction Reaction. State of the Art. *Electrochimica Acta*, **2015**, 179, 108-118	6.7	44
156	Enhanced oxygen reduction reaction stability on platinum nanoparticles photo-deposited onto oxide-carbon composites. *Applied Catalysis B: Environmental*, **2016**, 187, 291-300	21.8	42
155	Functionalizing Effect of Increasingly Graphitic Carbon Supports on Carbon-Supported and TiO2Carbon Composite-Supported Pt Nanoparticles. *Journal of Physical Chemistry C*, **2012**, 116, 21788-21794	3.8	42
154	Electrocatalytic properties of mixed transition metal tellurides (Chevrel-phases) for oxygen reduction. *Journal of Applied Electrochemistry*, **1995**, 25, 1004	2.6	42
153	Solid-state photoelectrochemical device using poly(o-methoxy aniline) as sensitizer and an ionic conductive elastomer as electrolyte. *Synthetic Metals*, **1999**, 105, 23-27	3.6	41
152	Functionalized-carbon nanotube supported electrocatalysts and buckypaper-based biocathodes for glucose fuel cell applications. *Electrochimica Acta*, **2011**, 56, 7659-7665	6.7	40

151	Carbon supported ruthenium chalcogenide as cathode catalyst in a microfluidic formic acid fuel cell. *Journal of Power Sources*, **2011**, 196, 1324-1328	8.9	40
150	Electrocatalysis of O2 reduction at polyaniline+molybdenum-doped ruthenium selenide composite electrodes. *Journal of Electroanalytical Chemistry*, **2000**, 481, 200-207	4.1	40
149	Yttrium oxide/gadolinium oxide-modified platinum nanoparticles as cathodes for the oxygen reduction reaction. *ChemPhysChem*, **2014**, 15, 2136-44	3.2	39
148	Experimental Protocol for HOR and ORR in Alkaline Electrochemical Measurements. *Journal of the Electrochemical Society*, **2018**, 165, J3001-J3007	3.9	38
147	Electrochemistry of platinum nanoparticles supported in polypyrrole (PPy)/C composite materials. *Journal of Solid State Electrochemistry*, **2008**, 12, 569-574	2.6	37
146	Insight into the Mechanisms of High Activity and Stability of Iridium Supported on Antimony-Doped Tin Oxide Aerogel for Anodes of Proton Exchange Membrane Water Electrolyzers. *ACS Catalysis*, **2020**, 10, 2508-2516	13.1	36
145	Interfacial behavior of hydrogen-treated sulphur deficient pyrite (FeS2□). *Solar Energy Materials and Solar Cells*, **1988**, 18, 9-21		36
144	The Hydrogen Oxidation Reaction in Alkaline Medium: An Overview. *Electrochemical Energy Reviews* , **2019**, 2, 312-331	29.3	33
143	Oxygen reduction reaction increased tolerance and fuel cell performance of Pt and RuxSey onto oxide□arbon composites. *Journal of Power Sources*, **2011**, 196, 4290-4297	8.9	33
142	An in situ grazing incidence X-ray absorption study of ultra thin RuxSey cluster-like electrocatalyst layers. *Electrochimica Acta*, **2000**, 45, 4227-4236	6.7	33
141	A kinetic approach of competitive photoelectrooxidation of HCOOH and H2O on TiO2 anatase thin layers via on-line mass detection. *Journal of Electroanalytical Chemistry*, **1994**, 379, 415-421	4.1	33
140	Carbon fiber paper supported interlayer space enlarged Ni2Fe-LDHs improved OER electrocatalytic activity. *Electrochimica Acta*, **2017**, 258, 554-560	6.7	31
139	Advanced bifunctional electrocatalyst generated through cobalt phthalocyanine tetrasulfonate intercalated Ni2Fe-layered double hydroxides for a laminar flow unitized regenerative micro-cell. *Journal of Power Sources*, **2017**, 361, 21-30	8.9	31
138	CoSe2 Supported on Nitrogen-Doped Carbon Nanohorns as a Methanol-Tolerant Cathode for Air-Breathing Microlaminar Flow Fuel Cells. *ChemElectroChem*, **2015**, 2, 1339-1345	4.3	30
137	Study of the electrooxidation of ethanol on hydrophobic electrodes by DEMS and HPLC. *Electrochimica Acta*, **2004**, 49, 3917-3925	6.7	30
136	Electro-reduction of nitrate species on Pt-based nanoparticles: Surface area effects. *Catalysis Today* , **2011**, 166, 201-204	5.3	29
135	Ru Clusters Synthesized Chemically from Dissolved Carbonyl: In Situ Study of a Novel Electrocatalyst in the Gas Phase and in Electrochemical Environment. *Journal of Physical Chemistry B*, **2001**, 105, 5238-5243	3.4	29
134	Platinum nanoparticles photo-deposited on SnO2-C composites: An active and durable electrocatalyst for the oxygen reduction reaction. *Electrochimica Acta*, **2019**, 316, 162-172	6.7	28

133	Structural and Electrochemical Studies of PtSn Nanoparticulate Catalysts. *Langmuir*, **2003**, 19, 10885-10891	4	28
132	Anomalous low-temperature kinetic effects for oxygen evolution on ruthenium dioxide and platinum electrodes. *The Journal of Physical Chemistry*, **1993**, 97, 7381-7384		28
131	The Effect of Substrates at Cathodes in Low-temperature Fuel Cells. *ChemElectroChem*, **2014**, 1, 37-46	4.3	27
130	Cobalt-Based Multicomponent Oxygen Reduction Reaction Electrocatalysts Generated by Melamine Thermal Pyrolysis with High Performance in an Alkaline Hydrogen/Oxygen Microfuel Cell. *ACS Applied Materials & Interfaces*, **2020**, 12, 21605-21615	9.5	25
129	An easy and cheap chemical route using a MOF precursor to prepare PdCu electrocatalyst for efficient energy conversion cathodes. *Journal of Catalysis*, **2016**, 338, 135-142	7.3	24
128	Genesis of RuxSey Nanoparticles by Pyrolysis of Ru4Se2(CO)11: A Combined X-ray in Situ and DFT Study. *Journal of Physical Chemistry C*, **2007**, 111, 3908-3913	3.8	24
127	Fabrication and evaluation of a passive alkaline membrane micro direct methanol fuel cell. *International Journal of Hydrogen Energy*, **2014**, 39, 5406-5413	6.7	23
126	Oxide Substrate Effect Toward Electrocatalytic Enhancement of Platinum and RutheniumSelenium Catalysts. *Electrocatalysis*, **2011**, 2, 181-191	2.7	23
125	Molybdenum Doping Augments Platinum-Copper Oxygen Reduction Electrocatalyst. *ChemSusChem* , **2018**, 11, 193-201	8.3	23
124	The assessment of nanocrystalline surface defects on real versus model catalysts probed via vibrational spectroscopy of adsorbed CO. *Surface Science*, **2009**, 603, 1892-1899	1.8	22
123	The oxophilic and electronic effects on anchored platinum nanoparticles on sp2 carbon sites: The hydrogen evolution and oxidation reactions in alkaline medium. *Electrochimica Acta*, **2018**, 283, 1829-1834	6.7	21
122	Tailoring of metal cluster-like materials for the molecular oxygen reduction reaction. *Pure and Applied Chemistry*, **2008**, 80, 2103-2114	2.1	20
121	Thermally Induced Strains on the Catalytic Activity and Stability of PtM2O3/C (M=Y or Gd) Catalysts towards Oxygen Reduction Reaction. *ChemCatChem*, **2015**, 7, 1573-1582	5.2	19
120	Chalcogenide Materials for Energy Conversion. *Nanostructure Science and Technology*, **2018**,	0.9	19
119	Performance Study of Platinum Nanoparticles Supported onto MWCNT in a Formic Acid Microfluidic Fuel Cell System. *Journal of the Electrochemical Society*, **2013**, 160, F859-F866	3.9	19
118	Nanostructured palladium tailored via carbonyl chemical route towards oxygen reduction reaction. *Electrochimica Acta*, **2015**, 173, 771-778	6.7	18
117	Enhanced HER and ORR behavior on photodeposited Pt nanoparticles onto oxidecarbon composite. *Journal of Solid State Electrochemistry*, **2013**, 17, 1913-1921	2.6	18
116	Induced electronic modification of Pt nanoparticles deposited onto graphitic domains of carbon materials by UV irradiation. *Electrochemistry Communications*, **2013**, 29, 12-16	5.1	18

115	Preparation and Characterization of Pt/C and Pt/TiO2 Electrocatalysts by Liquid Phase Photodeposition. *Topics in Catalysis*, **2011**, 54, 512-518	2.3	18
114	Electrooxidation of acetaldehyde on platinum-modified Ti/Ru0.3Ti0.7O2 electrodes. *Electrochimica Acta*, **2006**, 51, 2800-2808	6.7	18
113	Support Interaction Effect of Platinum Nanoparticles on Non-, Y-, Ce-Doped Anatase and Its Implication on the ORR in Acid and Alkaline Media. *ChemElectroChem*, **2017**, 4, 3264-3275	4.3	17
112	The effect of diluting ruthenium by iron in RuxSey catalyst for oxygen reduction. *Electrochimica Acta*, **2010**, 55, 7575-7580	6.7	17
111	Highly photoactive Brookite and Anatase with enhanced photocatalytic activity for the degradation of indigo carmine application. *Applied Catalysis B: Environmental*, **2016**, 198, 471-479	21.8	16
110	Oxygen and carbon monoxide interaction on novel clusters like ruthenium: a WAXS study. *Journal of Catalysis*, **2005**, 232, 395-401	7.3	16
109	Correlation between surface chemical composition with catalytic activity and selectivity of organic-solvent synthesized Pt□i nanoparticles. *Journal of Materials Chemistry A*, **2013**, 1, 8798	13	15
108	Nitrogen-Doped Reduced Graphite Oxide as a Support for CoSe Electrocatalyst for Oxygen Reduction Reaction in Alkaline Media. *Journal of the Electrochemical Society*, **2017**, 164, F658-F666	3.9	14
107	Improved Electrocatalytic Performance of Tailored Metal-Free Nitrogen-Doped Ordered Mesoporous Carbons for the Oxygen Reduction Reaction. *ChemElectroChem*, **2018**, 5, 1899-1904	4.3	14
106	Synthesis, electrochemical characterization and molecular dynamics studies of surface segregation of platinum nano-alloy electrocatalysts. *Physical Chemistry Chemical Physics*, **2011**, 13, 9201-8	3.6	14
105	Electrochemical behavior of nitrogen gas species adsorbed onto boron-doped diamond (BDD) electrodes. *Langmuir*, **2007**, 23, 11413-6	4	14
104	□lectrocatalyse par l□interm□diaire des centres m□talliques de compos□s de m□taux de transition. R□duction de l□oxyg□ne mol□culaire. *Journal De Chimie Physique Et De Physico-Chimie Biologique*, **1996**, 93, 702-710		14
103	The Catalytic Centre of Transition Metal Chalcogenides vis-□vis the Oxygen Reduction Reaction : An In Situ Electrochemical EXAFS Study. *European Physical Journal Special Topics*, **1997**, 7, C2-887-C2-889		14
102	Selective CoSe 2 /C cathode catalyst for passive air-breathing alkaline anion exchange membrane □direct methanol fuel cell (AEM-□DMFC). *International Journal of Hydrogen Energy*, **2016**, 41, 19595-19600	6.7	13
101	The interplay between hydrogen evolution reaction and nitrate reduction on boron-doped diamond in aqueous solution: the effect of alkali cations. *Electrochimica Acta*, **2014**, 117, 420-425	6.7	13
100	Electronic modification of Pt via Ti and Se as tolerant cathodes in air-breathing methanol microfluidic fuel cells. *Physical Chemistry Chemical Physics*, **2014**, 16, 13820-6	3.6	13
99	Comprehensive characterization and understanding of micro-fuel cells operating at high methanol concentrations. *Beilstein Journal of Nanotechnology*, **2015**, 6, 2000-6	3	13
98	Structural and photoelectrochemical properties of Ti1□WxO2 thin films deposited by magnetron sputtering. *Surface and Coatings Technology*, **2011**, 205, S265-S270	4.4	13

97	What Can We Learn in Electrocatalysis, from Nanoparticulated Precious and/or Non-Precious Catalytic Centers Interacting with Their Support?. *Catalysts*, **2016**, 6, 145	4	13
96	Photohole Trapping Induced Platinum Cluster Nucleation on the Surface of TiO2 Nanoparticles. *Journal of Physical Chemistry C*, **2014**, 118, 1111-1117	3.8	12
95	In situ photoelectrochemical/photocatalytic study of a dye discoloration in a microreactor system using TiO2 thin films. *Environmental Science and Pollution Research*, **2012**, 19, 3751-62	5.1	12
94	Oxygen reduction reaction selectivity of RuxSey in formic acid solutions. *Journal of Electroanalytical Chemistry*, **2010**, 648, 78-84	4.1	12
93	Boosting oxygen reduction activity and enhancing stability through structural transformation of layered lithium manganese oxide. *Nature Communications*, **2021**, 12, 3136	17.4	12
92	On the Availability of Active Sites for the Hydrogen Peroxide and Oxygen Reduction Reactions on Highly Dispersed Platinum Nanoparticles. *ChemElectroChem*, **2016**, 3, 1705-1712	4.3	12
91	Novel Non-Precious Metal Electrocatalysts for Oxygen Reduction Based on Nanostructured Cobalt Chalcogenide. *ECS Transactions*, **2007**, 11, 67-73	1	11
90	Electrocatalytic oxidation of lactose on gold nanoparticle modified carbon in carbonate buffer. *Journal of Applied Electrochemistry*, **2006**, 36, 147-151	2.6	11
89	Photocatalytic oxidation on nanostructured chalcogenide modified titanium dioxide. *Solar Energy Materials and Solar Cells*, **2004**, 83, 347-362	6.4	11
88	Interfacial behaviour of semiconducting RuS2 electrodes: a kinetic approach. *Journal of Electroanalytical Chemistry*, **1992**, 324, 127-144	4.1	11
87	Carbon supported Pt-Y2O3 and Pt-Gd2O3 nanoparticles prepared via carbonyl chemical route towards oxygen reduction reaction: Kinetics and stability. *International Journal of Hydrogen Energy*, **2016**, 41, 19601-19609	6.7	11
86	Synergistic effect of Yttrium and pyridine-functionalized carbon nanotube on platinum nanoparticles toward the oxygen reduction reaction in acid medium. *Journal of Catalysis*, **2016**, 344, 712-721	7.3	11
85	Oxygen vacancies engineering by coordinating oxygen-buffering CeO2 with CoO nanorods as efficient bifunctional oxygen electrode electrocatalyst. *Journal of Energy Chemistry*, **2021**, 59, 615-625	12	11
84	DEMS studies of the ethanol electro-oxidation on TiOC supported Pt catalysts□support effects for higher CO2 efficiency. *Electrochimica Acta*, **2019**, 304, 80-86	6.7	10
83	Tailoring nanostructured catalysts for electrochemical energy conversion systems. *Nanotechnology Reviews*, **2012**, 1, 427-453	6.3	10
82	Alkaline hydrogen electrode and oxygen reduction reaction on PtxNi nanoalloys. *Journal of Electroanalytical Chemistry*, **2020**, 857, 113449	4.1	10
81	Carbon Monoxide Oxidation as a Probe for PtRu Particle Surface Structure. *Journal of Physical Chemistry C*, **2008**, 112, 18521-18530	3.8	9
80	STM-photoeffects mediated by water adsorption on photocatalytic (RuS2, TiO2) materials. *Surface Science*, **1996**, 366, 508-518	1.8	9

79	The Oxygen Reduction and Hydrogen Evolution Reactions on Carbon Supported Cobalt Diselenide Nanostructures. *Journal of the Electrochemical Society*, **2020**, 167, 026507	3.9	9
78	Impact of the anodization time on the photocatalytic activity of TiO nanotubes. *Beilstein Journal of Nanotechnology*, **2018**, 9, 2628-2643	3	9
77	Tuning the Adsorption Properties of Layered Double Hydroxides to Tailor Highly Active Oxygen Bifunctional Electrocatalysts. *Journal of the Electrochemical Society*, **2017**, 164, F491-F498	3.9	8
76	Electroreduction of species in alkaline medium on Pt nanoparticles. *Electrochimica Acta*, **2013**, 88, 358-364	4.7	8
75	Electrochemistry of Nanocrystalline La0.5Sr0.5MnO3 Perovskite for the Oxygen Reduction Reaction in Alkaline Medium. *Electrocatalysis*, **2017**, 8, 450-458	2.7	8
74	Tailoring and Tuning the Tolerance of a Pt Chalcogenide Cathode Electrocatalyst to Methanol. *ChemCatChem*, **2013**, 5, 701-705	5.2	8
73	Structure Phase Transition and Oxygen Reduction Activity in Acidic Medium of Carbon-Supported Cobalt Selenide Nanoparticles. *ECS Transactions*, **2009**, 25, 167-173	1	8
72	The CO-adsorbate electrooxidation on ruthenium cluster-like materials. *Journal of Electroanalytical Chemistry*, **2003**, 554-555, 379-384	4.1	8
71	In situ EXAFS study of Ru-containing electrocatalysts of oxygen reduction. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2000**, 448, 323-326	1.2	8
70	In situ X-ray-electrochemical studies on the origin of H2O2 production during oxygen reduction at transition metal cluster materials. *Electrochimica Acta*, **1996**, 41, 1471-1478	6.7	8
69	Electrode surface modification through Nafion-attached transition-metal cluster chalcogenide particles. *Journal of Electroanalytical Chemistry and Interfacial Electrochemistry*, **1987**, 229, 223-237		8
68	FeCo nanoalloys embedded in nitrogen-doped carbon nanosheets/bamboo-like carbon nanotubes for the oxygen reduction reaction. *Inorganic Chemistry Frontiers*, **2021**, 8, 109-121	6.8	8
67	The Effect of Carbon-Based Substrates onto Non-Precious and Precious Electrocatalytic Centers. *ECS Transactions*, **2015**, 69, 35-42	1	7
66	NiO/Ni/CNT as an Efficient Hydrogen Electrode Catalyst for a Unitized Regenerative Alkaline Microfluidic Cell. *ACS Applied Energy Materials*, **2020**, 3, 4746-4755	6.1	7
65	Photocatalysis an enhancer of electrocatalytic process. *Current Opinion in Electrochemistry*, **2018**, 9, 114-120	7.2	7
64	Selenium Decorated Reduced Graphene Oxide Supported CoSe2 Nanoparticles as Efficient Electrochemical Catalyst for the Oxygen Reduction Reaction. *ChemElectroChem*, **2018**, 5, 3287-3292	4.3	7
63	Proton Conductive Areas on Sulfonated Poly(Arylene Ketone) Multiblock Copolymer Electrolyte Membrane Studied by Current-Sensing Atomic Force Microscopy. *Electrochemistry*, **2014**, 82, 369-375	1.2	7
62	Effect of Co substitution for Fe in Sr2FeMoO6 on electrocatalytic properties for oxygen reduction in alkaline medium. *Ionics*, **2013**, 19, 1155-1162	2.7	7

61	The effect of tuning and origin of tolerance to organics of platinum catalytic centers modified by selenium. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 2030-2034	1.6	7
60	Carbon-Supported CoSe2 Nanoparticles for Oxygen Reduction Reaction in Acid Medium. *Fuel Cells*, **2009**, 10, NA-NA	2.9	7
59	Electro-reduction of Nitrate and Nitrite Ions on Carbon-Supported Pt Nanoparticles. *ECS Transactions*, **2008**, 15, 385-393	1	7
58	In situ EXAFS-electrochemical study of reduction of molecular oxygen on Mo?Ru?Se thin layers electrodes in acidic media. *Physica B: Condensed Matter*, **1995**, 208-209, 694-696	2.8	7
57	Nitrogen-Doped Ordered Mesoporous Carbons Supported Co3O4 Composite as a Bifunctional Oxygen Electrode Catalyst. *Surfaces*, **2019**, 2, 229-240	2.9	6
56	Recharge processes of paramagnetic centers during illumination in nitrogen-doped nanocrystalline titanium dioxide. *Chemical Physics Letters*, **2015**, 635, 241-244	2.5	6
55	Surfactant-Assisted Fabrication of Cubic Cobalt Oxide Hybrid Hollow Spheres as Catalysts for the Oxygen Reduction Reaction. *ChemElectroChem*, **2018**, 5, 2192-2198	4.3	6
54	Transition Metal Chalcogenides for Oxygen Reduction Electrocatalysts in PEM Fuel Cells **2014**, 157-182		6
53	Photoelectrochemical characterization of p-type silicon electrodes covered with tunnelling nitride dielectric films. *Thin Solid Films*, **2007**, 515, 7376-7381	2.2	6
52	Spectral sensitization of titanium dioxide electrodes via Ru-based chalcogenides thin layers. *Solar Energy Materials and Solar Cells*, **1994**, 31, 509-524	6.4	6
51	Chemistry, Surface Electrochemistry, and Electrocatalysis of Carbon-Supported Palladium-Selenized Nanoparticles. *ACS Applied Energy Materials*, **2020**, 3, 11434-11444	6.1	6
50	5 Structure and Reactivity of Transition Metal Chalcogenides toward the Molecular Oxygen Reduction Reaction. *Modern Aspects of Electrochemistry*, **2011**, 255-300		6
49	Probing ethanol oxidation mechanism with in-situ FTIR spectroscopy via photodeposited Pt nanoparticles onto titania. *Journal of Electroanalytical Chemistry*, **2017**, 799, 228-234	4.1	5
48	Unitized Regenerative Alkaline Microfluidic Cell Based on Platinum Group Metal-Free Electrode Materials. *ACS Applied Energy Materials*, **2020**, 3, 7397-7403	6.1	5
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