Mohamed S El-Deab

List of Publications by Year
in descending order

88	3,328	126907	161849
papers	citations	33 h-index	54 g-index

91	91	91	3087
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Manganese Oxide Nanoparticles Electrodeposited on Platinum Are Superior to Platinum for Oxygen Reduction. Angewandte Chemie - International Edition, 2006, 45, 5963-5966.	13.8	193
2	Hydrodynamic voltammetric studies of the oxygen reduction at gold nanoparticles-electrodeposited gold electrodes. Electrochimica Acta, 2002, 47, 4255-4261.	5.2	160
3	Electrochemical Reduction of Oxygen on Gold Nanoparticle-Electrodeposited Glassy Carbon Electrodes. Journal of the Electrochemical Society, 2003, 150, A851.	2.9	158
4	Enhanced water electrolysis: Electrocatalytic generation of oxygen gas at manganese oxide nanorods modified electrodes. Electrochemistry Communications, 2007, 9, 2082-2087.	4.7	145
5	Oxygen reduction at electrochemically deposited crystallographically oriented Au(100)-like gold nanoparticles. Electrochemistry Communications, 2005, 7, 29-34.	4.7	144
6	Size and Crystallographic Orientation Controls of Gold Nanoparticles Electrodeposited on GC Electrodes. Journal of the Electrochemical Society, 2005, 152, C1.	2.9	104
7	Electrocatalytic activity of nickel oxide nanoparticles-modified electrodes: Optimization of the loading level and operating pH towards the oxygen evolution reaction. International Journal of Hydrogen Energy, 2012, 37, 68-77.	7.1	92
8	Electrocatalysis by nanoparticles: oxygen reduction on gold nanoparticles-electrodeposited platinum electrodes. Journal of Electroanalytical Chemistry, 2003, 553, 107-115.	3.8	87
9	Oxygen reduction at Au nanoparticles electrodeposited on different carbon substrates. Electrochimica Acta, 2006, 52, 1792-1798.	5.2	86
10	Fabrication of Au(111)-Like Polycrystalline Gold Electrodes and Their Applications to Oxygen Reduction. Journal of the Electrochemical Society, 2004, 151, E213.	2.9	76
11	Electrocatalysis by nanoparticles: Optimization of the loading level and operating pH for the oxygen evolution at crystallographically oriented manganese oxide nanorods modified electrodes. Electrochimica Acta, 2008, 53, 4351-4358.	5.2	75
12	Electroreduction of nitrate ion to nitrite and ammonia on a gold electrode in acidic and basic sodium and cesium nitrate solutions. Journal of Electroanalytical Chemistry, 1999, 470, 46-52.	3.8	70
13	Electrocatalysis by design: Enhanced electrooxidation of formic acid at platinum nanoparticlesâ€“nickel oxide nanoparticles binary catalysts. Electrochimica Acta, 2013, 94, 62-71.	5.2	67
14	Quasi-reversible two-electron reduction of oxygen at gold electrodes modified with a self-assembled submonolayer of cysteine. Electrochemistry Communications, 2003, 5, 214-219.	4.7	63
15	Efficient catalytic production of biodiesel using nano-sized sugar beet agro-industrial waste. Fuel, 2020, 261, 116481.	6.4	59
16	Electrochemical reduction of nitrate to ammonia at modified gold electrodes. Electrochimica Acta, 2004, 49, 1639-1645.	5.2	57
17	Molecular-level design of binary self-assembled monolayers on polycrystalline gold electrodes. Electrochimica Acta, 2004, 49, 2189-2194.	5.2	57
18	Electrocatalysis by design: Effect of the loading level of Au nanoparticlesâ€“MnOx nanoparticles binary catalysts on the electrochemical reduction of molecular oxygen. Electrochimica Acta, 2007, 52, 2166-2174.	5.2	57

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19	On the preferential crystallographic orientation of Au nanoparticles: Effect of electrodeposition time. Electrochimica Acta, 2009, 54, 3720-3725.	5.2	56
20	Electrochemical Preparation of a Au Crystal with Peculiar Morphology and Unique Growth Orientation and Its Catalysis for Oxygen Reduction. Journal of the Electrochemical Society, 2005, 152, A1226.	2.9	52
21	Electrocatalytic Reduction of Oxygen at Au Nanoparticlesâ€“Manganese Oxide Nanoparticle Binary Catalysts. Journal of the Electrochemical Society, 2006, 153, A1365.	2.9	48
22	Towards improving the catalytic activity and stability of platinum-based anodes in direct formic acid fuel cells. International Journal of Hydrogen Energy, 2015, 40, 7808-7816.	7.1	48
23	Hybrid supercapacitors: A simple electrochemical approach to determine optimum potential window and charge balance. Journal of Power Sources, 2020, 480, 229152.	7.8	45
24	Facilitated Electro-Oxidation of Formic Acid at Nickel Oxide Nanoparticles Modified Electrodes. Journal of the Electrochemical Society, 2012, 159, F249-F254.	2.9	41
25	Enhanced electro-oxidation of formic acid at manganese oxide single crystalline nanorod-modified Pt electrodes. Electrochemistry Communications, 2009, 11, 776-778.	4.7	40
26	Propitious Dendritic Cu₂Oâ€“Pt Nanostructured Anodes for Direct Formic Acid Fuel Cells. ACS Applied Materials & Interfaces, 2017, 9, 19766-19772.	8.0	39
27	Electrocatalytic oxidation of methanol at tantalum oxide-modified Pt electrodes. Journal of Power Sources, 2012, 220, 399-404.	7.8	38
28	Superior electrocatalysis of formic acid electro-oxidation on a platinum, gold and manganese oxide nanoparticle-based ternary catalyst. International Journal of Hydrogen Energy, 2018, 43, 139-149.	7.1	37
29	Design of efficient bimetallic Ptâ€“Au nanoparticle-based anodes for direct formic acid fuel cells. International Journal of Hydrogen Energy, 2019, 44, 3615-3624.	7.1	37
30	Nanocrystalline Cellulose Confined in Amorphous Carbon Fibers as Capacitor Material for Efficient Energy Storage. Journal of Physical Chemistry C, 2020, 124, 7007-7015.	3.1	37
31	Electrosynthesis of Single-Crystalline MnOOH Nanorods onto Pt Electrodes. Journal of the Electrochemical Society, 2008, 155, D14.	2.9	35
32	Acrylonitrile-contamination induced enhancement of formic acid electro-oxidation at platinum nanoparticles modified glassy carbon electrodes. Journal of Power Sources, 2014, 265, 57-61.	7.8	34
33	Electrocatalysis by design: Synergistic catalytic enhancement of formic acid electro-oxidation at coreâ€“shell Pd/Pt nanocatalysts. International Journal of Hydrogen Energy, 2015, 40, 1789-1794.	7.1	34
34	Poisoning Effect of Selected Hydrocarbon Impurities on the Catalytic Performance of Pt/C Catalysts towards the Oxygen Reduction Reaction. Journal of the Electrochemical Society, 2013, 160, F651-F658.	2.9	33
35	Conducting polymers inducing catalysis: Enhanced formic acid electro-oxidation at a Pt/polyaniline nanocatalyst. International Journal of Hydrogen Energy, 2017, 42, 11166-11176.	7.1	33
36	Efficient direct formic acid fuel cell (DFAFC) anode of nano-sized palladium complex: High durability and activity origin. Applied Catalysis B: Environmental, 2017, 213, 118-126.	20.2	32

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37	Tailor-Designed Platinum Nanoparticles Electrodeposited onto Gold Electrode. Journal of the Electrochemical Society, 2007, 154, B810.	2.9	30
38	Activation/deactivation behavior of nano-NiOx based anodes towards the OER: Influence of temperature. Electrochimica Acta, 2018, 276, 176-183.	5.2	30
39	Electrocatalysis by design: Enhanced electro-oxidation of glycerol at NiOx nanoparticle modified 3D porous carbon felts. International Journal of Hydrogen Energy, 2020, 45, 9658-9668.	7.1	30
40	Synergistic enhancement of the electro-oxidation of methanol at tailor-designed nanoparticle-based CoOx/MnOx/Pt ternary catalysts. Electrochimica Acta, 2015, 165, 402-409.	5.2	29
41	Impurities Contributing to Catalysis: Enhanced Electro-Oxidation of Formic Acid at Pt/GC Electrodes in the Presence of Vinyl Acetate. Journal of Physical Chemistry C, 2014, 118, 22457-22464.	3.1	28
42	Hydrogen spillover phenomenon: Enhanced reversible hydrogen adsorption/desorption at Ta2O5-coated Pt electrode in acidic media. Electrochimica Acta, 2010, 55, 3528-3536.	5.2	27
43	Fuel blends: Enhanced electro-oxidation of formic acid in its blend with methanol at platinum nanoparticles modified glassy carbon electrodes. Journal of Power Sources, 2015, 286, 504-509.	7.8	27
44	Flower-shaped gold nanoparticles: Preparation, characterization, and electrocatalytic application. Arabian Journal of Chemistry, 2017, 10, 877-884.	4.9	27
45	Electrooxidation of Formic Acid at Platinumâ€“Gold Nanoparticle-modified Electrodes. Chemistry Letters, 2011, 40, 1374-1375.	1.3	25
46	Interaction of cysteine and copper ions on the surface of iron: EIS, polarization and XPS study. Materials Chemistry and Physics, 2011, 129, 223-227.	4.0	25
47	Impact of acrylonitrile poisoning on oxygen reduction reaction at Pt/C catalysts. Journal of Power Sources, 2013, 229, 65-71.	7.8	25
48	A competent simultaneously co-electrodeposited Pt-MnOx nanocatalyst for enhanced formic acid electro-oxidation. Journal of the Taiwan Institute of Chemical Engineers, 2019, 96, 169-175.	5.3	24
49	Promoting Effect of Hydrocarbon Impurities on the Electro-Oxidation of Formic Acid at Pt Nanoparticles Modified GC Electrodes. Electrochimica Acta, 2015, 180, 268-279.	5.2	23
50	Electrochemical reduction of nitrate to ammonia at modified gold electrodes. Electrochimica Acta, 2004, 49, 1639-1645.	5.2	22
51	Direct electron transfer of copperâ€“zinc superoxide dismutase (SOD) on crystallographically oriented Au nanoparticles. Electrochemistry Communications, 2007, 9, 651-656.	4.7	22
52	Enhanced electrolytic generation of oxygen gas at binary nickel oxideâ€“cobalt oxide nanoparticle-modified electrodes. Journal of Solid State Electrochemistry, 2013, 17, 871-879.	2.5	22
53	Boosted electrocatalytic oxidation of formic acid at CoOx/Pd/Au nanoparticle-based ternary catalyst. International Journal of Hydrogen Energy, 2020, 45, 21297-21307.	7.1	22
54	Non-platinum electrocatalysts: Manganese oxide nanoparticle-cobaltporphyrin binary catalysts for oxygen reduction. Journal of Applied Electrochemistry, 2008, 38, 1445-1451.	2.9	20

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55	Platinum nanoparticlesâ€“manganese oxide nanorods as novel binary catalysts for formic acid oxidation. Journal of Advanced Research, 2012, 3, 65-71.	9.5	20
56	Electrocatalysis by Nanoparticle: Enhanced Electro-Oxidation of Formic Acid at NiO_xâ€“Pd Binary Nanocatalysts. Journal of the Electrochemical Society, 2015, 162, F1114-F1118.	2.9	20
57	Enhanced electrocatalytic oxidation of glucose at graphene nanosheets â€“ Metal oxides nanoparticles modified GC electrodes. Journal of Electroanalytical Chemistry, 2019, 835, 313-323.	3.8	20
58	Tailorâ€Designed Porous Catalysts: Nickelâ€Doped Cu/Cu₂O Foams for Efficient Glycerol Electroâ€Oxidation. ChemElectroChem, 2020, 7, 951-958.	3.4	19
59	Multi-walled vanadium oxide nanotubes modified 3D microporous bioderived carbon as novel electrodes for hybrid capacitive deionization. Separation and Purification Technology, 2021, 266, 118597.	7.9	18
60	Enhanced Electrocatalytic Oxidation of Urea at CuOx-NiOx Nanoparticle-Based Binary Catalyst Modified Polyaniline/GC Electrodes. Journal of the Electrochemical Society, 2020, 167, 064522.	2.9	17
61	Performance Enhancement of PA-TFC RO Membrane by Using Magnesium Silicate Nanoparticles. Journal of Inorganic and Organometallic Polymers and Materials, 2017, 27, 201-214.	3.7	16
62	On the aggregation phenomena of Au nanoparticles: Effect of substrate roughness on the particle size. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 318, 78-83.	4.7	14
63	Electrocatalysis by nanoparticles: Oxidation of formic acid at manganese oxide nanorods-modified Pt planar and nanohole-arrays. Journal of Advanced Research, 2010, 1, 87-93.	9.5	14
64	3D Macroporous Catalysts: Impact of Additives on the Morphology and Performance of Cu/Cu2O Foam Prepared by Dynamic Hydrogen Bubble Template Towards Glycerol Electro-Oxidation. Journal of the Electrochemical Society, 2020, 167, 114505.	2.9	14
65	In situ generation of exfoliated graphene layers on recycled graphite rods for enhanced capacitive performance of Niâ€“Co binary hydroxide. RSC Advances, 2021, 11, 26258-26272.	3.6	14
66	Dual-functioning porous catalysts: robust electro-oxidation of small organic molecules and water electrolysis using bimetallic Ni/Cu foams. Sustainable Energy and Fuels, 2021, 5, 986-994.	4.9	14
67	Microporous Film of Ternary Ni/Co/Fe Alloy for Superior Electrolytic Hydrogen Production in Alkaline Medium. Journal of the Electrochemical Society, 2021, 168, 054509.	2.9	14
68	Electrocatalytic Oxidation of Methanol at Nanoparticle-Based MnOx/NiOx/Pt Ternary Catalysts: Optimization of Loading Level and Order of Deposition. Journal of the Electrochemical Society, 2014, 161, F1340-F1347.	2.9	13
69	Novel fuel blends facilitating the electro-oxidation of formic acid at a nano-Pt/GC electrode. RSC Advances, 2016, 6, 29099-29105.	3.6	13
70	Novel procedure for the fabrication of gold nanostructures enriched in Au (1 1 0) facet orientation. Electrochemistry Communications, 2009, 11, 1273-1276.	4.7	12
71	Promising ethylene glycol electro-oxidation at tailor-designed NiOx/Pt nanocatalyst. International Journal of Hydrogen Energy, 2017, 42, 5095-5104.	7.1	12
72	Resistivity zone index: A new approach in rock typing to enhance reservoir characterization using well log data. Energy Reports, 2021, 7, 711-723.	5.1	12

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73	Boosted electrolytic hydrogen production at tailor-tuned nano-dendritic Ni-doped Co foam-like catalyst. Electrochimica Acta, 2022, 410, 139992.	5.2	11
74	Fabrication of Phase-Separated Multicomponent Self-Assembled Monolayers at Gold Nanoparticles Electrodeposited on Glassy Carbon Electrodes. Journal of the Electrochemical Society, 2006, 153, E201.	2.9	10
75	Tailor-designed Ni-Co binary hydroxide electrodes for boosted supercapacitor applications: Smart selection of additives. Electrochimica Acta, 2021, 378, 137991.	5.2	10
76	Fabrication of CuO_x-Pd Nanocatalyst Supported on a Glassy Carbon Electrode for Enhanced Formic Acid Electro-Oxidation. Journal of Nanotechnology, 2018, 2018, 1-9.	3.4	9
77	EIS-Activity Correlation for the Electro-Oxidation of Ethylene Glycol at Nanoparticles-Based Electrocatalysts. Journal of the Electrochemical Society, 2019, 166, F364-F376.	2.9	9
78	Smart selection of fuel blends: Robust oxidation of formic acid in its blend with urea at NiOx/Pd nanoparticles-based binary anodes. Renewable Energy, 2021, 167, 830-840.	8.9	9
79	CBG-HCl as a green corrosion inhibitor for low carbon steel in 0.5M H2SO4 with and without 0.1M NaCl. , 0, 164, 240-248.		9
80	Electrocatalytic Activity of Metal-Loaded Reticulated Vitreous Carbon Electrodes for Hydrogen Evolution from Flowing Alkaline Solutions. Bulletin of the Chemical Society of Japan, 2006, 79, 1711-1718.	3.2	7
81	Electrocatalysis of Formic Acid Electro-Oxidation at Platinum Nanoparticles Modified Surfaces with Nickel and Cobalt Oxides Nanostructures. , 2015, , 577-594.		6
82	Enhanced electro-oxidation of methanol at nanoparticle-based Ru/Pt bimetallic catalyst: Impact of GC substrate pretreatment. International Journal of Hydrogen Energy, 2020, 45, 27171-27181.	7.1	4
83	Electrocatalysis by Nanoparticles: Fabrication and Electrochemical Applications of Tailor-Designed Nanoparticles-Based Electrocatalysts. Electrochemistry, 2007, 75, 858-866.	1.4	3
84	Bisthiolâ€Assisted Multilayers' Selfâ€Assembly of Gold Nanoparticles: Synthesis, Characterization, Size Control and Electrocatalytic Applications. Macromolecular Symposia, 2008, 270, 74-81.	0.7	3
85	Electrocatalytic Oxidation of CO at Pt Modified with Manganese Oxide Nanorods. Electrocatalysis, 2011, 2, 220-223.	3.0	3
86	Synergistic Effect of Urea on Vitamin C Electro-Oxidation at NiOx/CoOx Binary Catalysts Supported on Graphene Nanosheets. Journal of the Electrochemical Society, 0, , .	2.9	3
87	The Origin of Electrocatalytic Activity of Gold Nanoparticles Modified Pt-Based Surfaces Towards Formic Acid Oxidation. Springer Proceedings in Energy, 2015, , 379-387.	0.3	2
88	On the Catalytic Activity of Palladium Nanoparticles-Based Anodes Towards Formic Acid Electro-oxidation: Effect of Electrodeposition Potential. , 2015, , 559-570.		1