

Sengeni Anantharaj

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81
papers

5,467
citations

34
h-index

73
g-index

82
ext. papers

7,345
ext. citations

8.8
avg, IF

7.02
L-index

#	Paper	IF	Citations
81	Worrisome Exaggeration of Activity of Electrocatalysts Destined for Steady-State Water Electrolysis by Polarization Curves from Transient Techniques. <i>Journal of the Electrochemical Society</i> , 2022 , 169, 014508	3.9	6
80	Hydrogen evolution reaction on Pt and Ru in alkali with volmer-step promoters and electronic structure modulators. <i>Current Opinion in Electrochemistry</i> , 2022 , 33, 100961	7.2	1
79	Efficient Methanol Electrooxidation Catalyzed by Potentiostatically Grown Cu ₂ O/OH(Ni) Nanowires: Role of Inherent Ni Impurity. <i>ACS Applied Energy Materials</i> , 2022 , 5, 419-429	6.1	3
78	Layered 2D transition metal (W, Mo, and Pt) chalcogenides for hydrogen evolution reaction 2022 , 495-525		1
77	Why Shouldn't Double-Layer Capacitance (C _{dl}) Be Always Trusted to Justify Faradaic Electrocatalytic Activity Differences?. <i>Journal of Electroanalytical Chemistry</i> , 2021 , 115842	4.1	8
76	Alternating Current Techniques for a Better Understanding of Photoelectrocatalysts. <i>ACS Catalysis</i> , 2021 , 11, 12763-12776	13.1	1
75	The Fe Effect—A review unveiling the critical roles of Fe in enhancing OER activity of Ni and Co based catalysts. <i>Nano Energy</i> , 2021 , 80, 105514	17.1	138
74	Surface amorphized nickel hydroxy sulphide for efficient hydrogen evolution reaction in alkaline medium. <i>Chemical Engineering Journal</i> , 2021 , 408, 127275	14.7	20
73	A review on recent developments in electrochemical hydrogen peroxide synthesis with a critical assessment of perspectives and strategies. <i>Advances in Colloid and Interface Science</i> , 2021 , 287, 102331	14.3	16
72	Ru-tweaking of non-precious materials: the tale of a strategy that ensures both cost and energy efficiency in electrocatalytic water splitting. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 6710-6731	13	22
71	Photoelectrochemical concurrent hydrogen generation and heavy metal recovery from polluted acidic mine water. <i>Sustainable Energy and Fuels</i> , 2021 , 5, 3084-3091	5.8	0
70	A bifunctional hexa-filamentous microfibril multimetallic foam: an unconventional high-performance electrode for total water splitting under industrial operation conditions. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 4971-4983	13	7
69	Pushing the Limits of Rapid Anodic Growth of CuO/Cu(OH) ₂ Nanoneedles on Cu for the Methanol Oxidation Reaction: Anodization pH Is the Game Changer. <i>ACS Applied Energy Materials</i> , 2021 , 4, 899-912	6.1	10
68	Strategies and Perspectives to Catch the Missing Pieces in Energy-Efficient Hydrogen Evolution Reaction in Alkaline Media. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 18981-19006	16.4	59
67	Strategies and Perspectives to Catch the Missing Pieces in Energy-Efficient Hydrogen Evolution Reaction in Alkaline Media. <i>Angewandte Chemie</i> , 2021 , 133, 19129-19154	3.6	10
66	The Significance of Properly Reporting Turnover Frequency in Electrocatalysis Research. <i>Angewandte Chemie</i> , 2021 , 133, 23235	3.6	0
65	The Significance of Properly Reporting Turnover Frequency in Electrocatalysis Research. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 23051-23067	16.4	34

64	The upsurge of photocatalysts in antibiotic micropollutants treatment: Materials design, recovery, toxicity and bioanalysis. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2021 , 48, 100437	16.4	3
63	Chemical Leaching of Inactive Cr and Subsequent Electrochemical Resurfacing of Catalytically Active Sites in Stainless Steel for High-Rate Alkaline Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020 , 3, 12596-12606	6.1	10
62	Appropriate Use of Electrochemical Impedance Spectroscopy in Water Splitting Electrocatalysis. <i>ChemElectroChem</i> , 2020 , 7, 2297-2308	4.3	54
61	Ultrafast Growth of a Cu(OH)-CuO Nanoneedle Array on Cu Foil for Methanol Oxidation Electrocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 27327-27338	9.5	49
60	Developments in DNA metallization strategies for water splitting electrocatalysis: A review. <i>Advances in Colloid and Interface Science</i> , 2020 , 282, 102205	14.3	14
59	Direct Evidence of an Efficient Plasmon-Induced Hot-Electron Transfer at an in Situ Grown Ag/TiO ₂ Interface for Highly Enhanced Solar H ₂ Generation. <i>ACS Applied Energy Materials</i> , 2020 , 3, 1821-1830	6.1	13
58	Achieving Increased Electrochemical Accessibility and Lowered Oxygen Evolution Reaction Activation Energy for Co ²⁺ Sites with a Simple Anion Preoxidation. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 9673-9684	3.8	21
57	Zn-substituted MnCo ₂ O ₄ nanostructure anchored over rGO for boosting the electrocatalytic performance towards methanol oxidation and oxygen evolution reaction (OER). <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 14713-14727	6.7	38
56	Review A Review on Electrodes Used in Electroorganic Synthesis and the Significance of Coupled Electrocatalytic Reactions. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 125503	3.9	8
55	Nickel selenides as pre-catalysts for electrochemical oxygen evolution reaction: A review. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 15763-15784	6.7	58
54	Progress in nickel chalcogenide electrocatalyzed hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 4174-4192	13	95
53	Developments and Perspectives in 3d Transition-Metal-Based Electrocatalysts for Neutral and Near-Neutral Water Electrolysis. <i>Advanced Energy Materials</i> , 2020 , 10, 1902666	21.8	113
52	V Incorporated ECo(OH): A Robust and Efficient Electrocatalyst for Water Oxidation. <i>Inorganic Chemistry</i> , 2020 , 59, 730-740	5.1	14
51	Amorphous Catalysts and Electrochemical Water Splitting: An Untold Story of Harmony. <i>Small</i> , 2020 , 16, e1905779	11	210
50	Boosting the oxygen evolution activity of copper foam containing trace Ni by intentionally supplementing Fe and forming nanowires in anodization. <i>Electrochimica Acta</i> , 2020 , 364, 137170	6.7	9
49	Membrane free water electrolysis under 1.23 V with Ni ₃ Se ₄ /Ni anode in alkali and Pt cathode in acid. <i>Applied Surface Science</i> , 2019 , 478, 784-792	6.7	22
48	Electrochemically chopped WS ₂ quantum dots as an efficient and stable electrocatalyst for water reduction. <i>Catalysis Science and Technology</i> , 2019 , 9, 223-231	5.5	22
47	Advanced CuSn and Selenized CuSn@Cu Foam as Electrocatalysts for Water Oxidation under Alkaline and Near-Neutral Conditions. <i>Inorganic Chemistry</i> , 2019 , 58, 9490-9499	5.1	22

46	Spinel Cobalt Titanium Binary Oxide as an All-Non-Precious Water Oxidation Electrocatalyst in Acid. <i>Inorganic Chemistry</i> , 2019 , 58, 8570-8576	5.1	26
45	Do the Evaluation Parameters Reflect Intrinsic Activity of Electrocatalysts in Electrochemical Water Splitting?. <i>ACS Energy Letters</i> , 2019 , 4, 1260-1264	20.1	178
44	Respective influence of stoichiometry and NiOOH formation in hydrogen and oxygen evolution reactions of nickel selenides. <i>Applied Surface Science</i> , 2019 , 487, 1152-1158	6.7	30
43	In Situ Mn-Doping-Promoted Conversion of Co(OH) ₂ to Co ₃ O ₄ as an Active Electrocatalyst for Oxygen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 9690-9698	8.3	28
42	Electrospun cobalt-ZIF micro-fibers for efficient water oxidation under unique pH conditions. <i>Catalysis Science and Technology</i> , 2019 , 9, 1847-1856	5.5	32
41	Cobalt tungsten oxide hydroxide hydrate (CTOHH) on DNA scaffold: an excellent bi-functional catalyst for oxygen evolution reaction (OER) and aromatic alcohol oxidation. <i>Dalton Transactions</i> , 2019 , 48, 17117-17131	4.3	18
40	Nanosheets of Nickel Iron Hydroxy Carbonate Hydrate with Pronounced OER Activity under Alkaline and Near-Neutral Conditions. <i>Inorganic Chemistry</i> , 2019 , 58, 1895-1904	5.1	40
39	Synthesis of ultra-small Rh nanoparticles congregated over DNA for catalysis and SERS applications. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019 , 173, 249-257	6	11
38	Precision and correctness in the evaluation of electrocatalytic water splitting: revisiting activity parameters with a critical assessment. <i>Energy and Environmental Science</i> , 2018 , 11, 744-771	35.4	628
37	NiTe Nanowire Outperforms Pt/C in High-Rate Hydrogen Evolution at Extreme pH Conditions. <i>Inorganic Chemistry</i> , 2018 , 57, 3082-3096	5.1	55
36	Microwave-Assisted Template-Free Synthesis of Ni ₃ (BO ₃) ₂ (NOB) Hierarchical Nanoflowers for Electrocatalytic Oxygen Evolution. <i>Energy & Fuels</i> , 2018 , 32, 6224-6233	4.1	8
35	Stainless Steel Scrubber: A Cost Efficient Catalytic Electrode for Full Water Splitting in Alkaline Medium. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 2498-2509	8.3	44
34	Nickelo-Sulfurization of DNA Leads to an Efficient Alkaline Water Oxidation Electrocatalyst with Low Ni Quantity. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 6802-6810	8.3	13
33	Shrinking the Hydrogen Overpotential of Cu by 1 V and Imparting Ultralow Charge Transfer Resistance for Enhanced H ₂ Evolution. <i>ACS Catalysis</i> , 2018 , 8, 5686-5697	13.1	31
32	Pt nanoparticle tethered DNA assemblies for enhanced catalysis and SERS applications. <i>New Journal of Chemistry</i> , 2018 , 42, 15784-15792	3.6	10
31	Investigation of various synthetic protocols for self-assembled nanomaterials and their role in catalysis: progress and perspectives. <i>Materials Today Chemistry</i> , 2018 , 10, 31-78	6.2	5
30	NiFe-Layered Double Hydroxide Sheets as an Efficient Electrochemical Biosensing Platform. <i>Journal of the Electrochemical Society</i> , 2018 , 165, B536-B542	3.9	9
29	One step synthesis of Ni/Ni(OH) ₂ nano sheets (NSs) and their application in asymmetric supercapacitors. <i>RSC Advances</i> , 2017 , 7, 5898-5911	3.7	96

28	Petal-like hierarchical array of ultrathin Ni(OH) ₂ nanosheets decorated with Ni(OH) ₂ nanoburles: a highly efficient OER electrocatalyst. <i>Catalysis Science and Technology</i> , 2017 , 7, 882-893	5.5	82
27	Core-Oxidized Amorphous Cobalt Phosphide Nanostructures: An Advanced and Highly Efficient Oxygen Evolution Catalyst. <i>Inorganic Chemistry</i> , 2017 , 56, 1742-1756	5.1	83
26	Microwave-Initiated Facile Formation of NiSe Nanoassemblies for Enhanced and Stable Water Splitting in Neutral and Alkaline Media. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 8714-8728	9.5	100
25	Self-Assembled Molecular Hybrids of CoS-DNA for Enhanced Water Oxidation with Low Cobalt Content. <i>Inorganic Chemistry</i> , 2017 , 56, 6734-6745	5.1	73
24	Magnetic CoPt nanoparticle-decorated ultrathin Co(OH) ₂ nanosheets: an efficient bi-functional water splitting catalyst. <i>Catalysis Science and Technology</i> , 2017 , 7, 2486-2497	5.5	46
23	Enhancing electrocatalytic total water splitting at few layer Pt-NiFe layered double hydroxide interfaces. <i>Nano Energy</i> , 2017 , 39, 30-43	17.1	177
22	Prompt synthesis of iridium organosol on DNA for catalysis and SERS applications. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 11947-11957	7.1	8
21	Iron hydroxyphosphate and Sn-incorporated iron hydroxyphosphate: efficient and stable electrocatalysts for oxygen evolution reaction. <i>Catalysis Science and Technology</i> , 2017 , 7, 5092-5104	5.5	19
20	Recovered spinel MnCoO from spent lithium-ion batteries for enhanced electrocatalytic oxygen evolution in alkaline medium. <i>Dalton Transactions</i> , 2017 , 46, 14382-14392	4.3	47
19	Potentiostatic phase formation of FeCoOOH on pulsed laser deposited biphasic cobalt oxide thin film for enhanced oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 23053-23066	13	36
18	High-Performance Oxygen Evolution Anode from Stainless Steel via Controlled Surface Oxidation and Cr Removal. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 10072-10083	8.3	51
17	Evolution of layered double hydroxides (LDH) as high performance water oxidation electrocatalysts: A review with insights on structure, activity and mechanism. <i>Materials Today Energy</i> , 2017 , 6, 1-26	7	194
16	Enhanced Water Oxidation with Improved Stability by Aggregated RuO ₂ -NaPO ₃ Core-shell Nanostructures in Acidic Medium. <i>Current Nanoscience</i> , 2017 , 13,	1.4	15
15	Ultra-small rhenium nanoparticles immobilized on DNA scaffolds: An excellent material for surface enhanced Raman scattering and catalysis studies. <i>Journal of Colloid and Interface Science</i> , 2016 , 483, 360-373	9.3	27
14	Recent Trends and Perspectives in Electrochemical Water Splitting with an Emphasis on Sulfide, Selenide, and Phosphide Catalysts of Fe, Co, and Ni: A Review. <i>ACS Catalysis</i> , 2016 , 6, 8069-8097	13.1	1378
13	Pt Nanoparticle Anchored Molecular Self-Assemblies of DNA: An Extremely Stable and Efficient HER Electrocatalyst with Ultralow Pt Content. <i>ACS Catalysis</i> , 2016 , 6, 4660-4672	13.1	140
12	Unprotected and interconnected Ru nano-chain networks: advantages of unprotected surfaces in catalysis and electrocatalysis. <i>Chemical Science</i> , 2016 , 7, 3188-3205	9.4	85
11	A highly stable rhenium organosol on a DNA scaffold for catalytic and SERS applications. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 6309-6320	7.1	27

10	Stacking intercalation and reductant assisted stabilization of osmium organosol for catalysis and SERS applications. <i>RSC Advances</i> , 2015 , 5, 11850-11860	3.7	9
9	Bio-molecule assisted aggregation of ZnWO ₄ nanoparticles (NPs) into chain-like assemblies: material for high performance supercapacitor and as catalyst for benzyl alcohol oxidation. <i>Inorganic Chemistry</i> , 2015 , 54, 3851-63	5.1	85
8	Self-assembled IrO ₂ nanoparticles on a DNA scaffold with enhanced catalytic and oxygen evolution reaction (OER) activities. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 24463-24478	13	107
7	Self-Assembled NiWO ₄ Nanoparticles into Chain-like Aggregates on DNA Scaffold with Pronounced Catalytic and Supercapacitor Activities. <i>Crystal Growth and Design</i> , 2015 , 15, 673-686	3.5	96
6	DNA-encapsulated chain and wire-like MnO ₂ organosol for oxidative polymerization of pyrrole to polypyrrole. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 5474-84	3.6	26
5	Enhanced catalytic and supercapacitor activities of DNA encapsulated MnO ₂ nanomaterials. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 21846-59	3.6	58
4	Osmium Organosol on DNA: Application in Catalytic Hydrogenation Reaction and in SERS Studies. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 19228-19238	3.9	37
3	The Pitfalls of Using Potentiodynamic Polarization Curves for Tafel Analysis in Electrocatalytic Water Splitting. <i>ACS Energy Letters</i> , 1607-1611	20.1	79
2	iR drop correction in electrocatalysis: everything one needs to know!. <i>Journal of Materials Chemistry A</i> ,	13	3
1	Layered 2D PtX ₂ (X = S, Se, Te) for the electrocatalytic HER in comparison with Mo/WX ₂ and Pt/C: are we missing the bigger picture?. <i>Energy and Environmental Science</i> ,	35.4	4