

Arun Murthy

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9237241/publications.pdf>

Version: 2024-02-01

39
papers

1,507
citations

430442

18
h-index

344852

36
g-index

40
all docs

40
docs citations

40
times ranked

1903
citing authors

#	ARTICLE	IF	CITATIONS
1	Fundamental aspects and recent advances in transition metal nitrides as electrocatalysts for hydrogen evolution reaction: A review. <i>Current Opinion in Solid State and Materials Science</i> , 2020, 24, 100805.	5.6	262
2	Recent advances in hydrogen evolution reaction catalysts on carbon/carbon-based supports in acid media. <i>Journal of Power Sources</i> , 2018, 398, 9-26.	4.0	163
3	Recent development on carbon based heterostructures for their applications in energy and environment: A review. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 64, 16-59.	2.9	146
4	Insights on Tafel Constant in the Analysis of Hydrogen Evolution Reaction. <i>Journal of Physical Chemistry C</i> , 2018, 122, 23943-23949.	1.5	136
5	Recent progress on synthetic strategies and applications of transition metal phosphides in energy storage and conversion. <i>Ceramics International</i> , 2021, 47, 4404-4425.	2.3	131
6	Highly active MoS ₂ /carbon electrocatalysts for the hydrogen evolution reaction – insight into the effect of the internal resistance and roughness factor on the Tafel slope. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 1988-1998.	1.3	108
7	Effect of Mo addition on the electrocatalytic activity of Pt–Sn–Mo/C for direct ethanol fuel cells. <i>Electrochimica Acta</i> , 2011, 56, 1611-1618.	2.6	57
8	Application of Derivative Voltammetry in the Analysis of Methanol Oxidation Reaction. <i>Journal of Physical Chemistry C</i> , 2012, 116, 3827-3832.	1.5	55
9	Robust bifunctional catalytic activities of N-doped carbon aerogel-nickel composites for electrocatalytic hydrogen evolution and hydrogenation of nitrocompounds. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 13334-13344.	3.8	45
10	Single-Step Electrodeposited Molybdenum Incorporated Nickel Sulfide Thin Films from Low-Cost Precursors as Highly Efficient Hydrogen Evolution Electrocatalysts in Acid Medium. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11108-11116.	1.5	42
11	Metal-doped molybdenum nitride films for enhanced hydrogen evolution in near-neutral strongly buffered aerobic media. <i>Electrochimica Acta</i> , 2018, 283, 1525-1533.	2.6	39
12	Carbon supported nickel phosphide as efficient electrocatalyst for hydrogen and oxygen evolution reactions. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 622-632.	3.8	39
13	Comparison of the stabilities and activities of Pt–Ru/C and Pt ₃ –Sn/C electrocatalysts synthesized by the polyol method for methanol electro-oxidation reaction. <i>Journal of Electroanalytical Chemistry</i> , 2011, 659, 168-175.	1.9	26
14	Electrodeposited carbon-supported nickel sulfide thin films with enhanced stability in acid medium as hydrogen evolution reaction electrocatalyst. <i>Journal of Solid State Electrochemistry</i> , 2018, 22, 365-374.	1.2	26
15	Carbon-supported Pt nanoparticles prepared by a modified borohydride reduction method: Effect on the particle morphology and catalytic activity for CO _{ad} and methanol electro-oxidation. <i>Electrochemistry Communications</i> , 2011, 13, 480-483.	2.3	21
16	Electrooxidation of methanol on highly active and stable Pt–Sn–Ce/C catalyst for direct methanol fuel cells. <i>Applied Catalysis B: Environmental</i> , 2012, 121-122, 154-161.	10.8	20
17	Enhancement of hydrogen evolution activities of low-cost transition metal electrocatalysts in near-neutral strongly buffered aerobic media. <i>Electrochemistry Communications</i> , 2017, 83, 6-10.	2.3	20
18	Analysis of the diffusion layer thickness, equivalent circuit and conductance behaviour for reversible electron transfer processes in linear sweep voltammetry. <i>Electrochimica Acta</i> , 2004, 49, 445-453.	2.6	19

#	ARTICLE	IF	CITATIONS
19	Highly water-dispersible, mixed ionic–electronic conducting, polymer acid-doped polyanilines as ionomers for direct methanol fuel cells. <i>Chemical Communications</i> , 2011, 47, 6882.	2.2	18
20	Highly Water Dispersible Polymer Acid-Doped Polyanilines as Low-Cost, Nafion-Free Ionomers for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2018, 1, 1512-1521.	2.5	18
21	Application of derivative voltammetry in the quantitative determination of alloxan at single-walled carbon nanotubes modified electrode. <i>Electrochimica Acta</i> , 2019, 317, 182-190.	2.6	15
22	Formulation of a simple analytical expression for irreversible electron transfer processes in linear sweep voltammetry and its experimental verification. <i>Electrochimica Acta</i> , 2004, 49, 2569-2579.	2.6	13
23	Direct kinetic evidence for the electronic effect of ruthenium in PtRu on the dissociative adsorption of methanol. <i>Electrochemistry Communications</i> , 2011, 13, 310-313.	2.3	12
24	Solvent effect on the electrochemical reductive cleavage of carbon tetrachloride – a novel example of the deviation from the quadratic activation-driving force relationship. <i>Chemical Physics Letters</i> , 2004, 390, 261-267.	1.2	11
25	A DMFC stack operating with hydrocarbon blend membranes and Pt–Ru–Sn–Ce/C and Pd–Co/C electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 7448-7457.	3.8	11
26	Electrochemical reductive cleavage of carbon–chlorine bond in 1-chloro-2,4-dinitrobenzene. <i>Electrochimica Acta</i> , 2005, 51, 242-246.	2.6	10
27	Estimation of the Gibbs free energy of transfer of electrolytes from aqueous to organic solvents – a novel application of the quadratic activation–driving force relationship. <i>Chemical Physics Letters</i> , 2003, 382, 325-331.	1.2	8
28	Cleavage of an aromatic carbon–heteroatom bond in a single step or successive steps? – A mechanistic distinction in the reduction of 5-bromo-1,3-dichloro-2-iodobenzene. <i>Tetrahedron Letters</i> , 2004, 45, 4741-4744.	0.7	8
29	Evidence for the formation of radical anion in the reductive cleavage of carbon–bromine bond in 4-bromomethylbiphenyl-2-carbonitrile. <i>Chemical Physics Letters</i> , 2005, 414, 55-60.	1.2	7
30	Current function for irreversible electron transfer processes in linear sweep voltammetry for the reactions obeying Marcus kinetics. <i>Chemical Physics Letters</i> , 2004, 387, 317-321.	1.2	5
31	Linear kinetic and free energy correlations for intra molecular dissociative electron transfers – Estimation of standard potentials and cleavage rate constants of radical anions of aromatic halides. <i>Chemical Physics Letters</i> , 2006, 421, 193-197.	1.2	5
32	Electrocatalytic oxidation of methanol to soluble products on polycrystalline platinum: Application of convolution potential sweep voltammetry in the estimation of kinetic parameters. <i>Electrochimica Acta</i> , 2011, 56, 6078-6083.	2.6	5
33	Electrochemical reductive cleavage of carbon–halogen bonds in 5-bromo-1,3-dichloro-2-iodobenzene. <i>Tetrahedron</i> , 2004, 60, 10967-10972.	1.0	3
34	Distinction between stepwise and concerted mechanisms in reductive cleavage reactions – use of voltammetric current function in the analysis of non-linear kinetic laws. <i>Tetrahedron</i> , 2005, 61, 1785-1791.	1.0	1
35	Hammett-type relationship for the cleavage of radical anions of aromatic chlorides and bromides. <i>Tetrahedron</i> , 2005, 61, 3755-3758.	1.0	1
36	4-Bromo-2,6-dichloroaniline. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2005, 61, o758-o759.	0.2	1

#	ARTICLE	IF	CITATIONS
37	5-Bromo-1,3-dichloro-2-iodobenzene. Acta Crystallographica Section E: Structure Reports Online, 2004, 60, o1933-o1934.	0.2	0
38	Reversible Quantum Confinement of Polarons by Reaction of Protonated Emeraldine with Nitric Oxide. Journal of Physical Chemistry B, 2009, 113, 10555-10558.	1.2	0
39	Novel synthesis methods of nanostructured oxide-free materials for energy storage and conversion applications. , 2022, , 25-49.		0