

Animesh Nayak

List of Publications by Year in descending order

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35
papers

1,189
citations

394421

19
h-index

377865

34
g-index

39
all docs

39
docs citations

39
times ranked

1858
citing authors

#	ARTICLE	IF	CITATIONS
1	Supramolecular-Chromophore-Sensitized Near-Infrared-to-Visible Photon Upconversion. <i>Journal of the American Chemical Society</i> , 2010, 132, 14203-14211.	13.7	131
2	Single catalyst electrocatalytic reduction of CO ₂ in water to H ₂ +CO syngas mixtures with water oxidation to O ₂ . <i>Energy and Environmental Science</i> , 2014, 7, 4007-4012.	30.8	120
3	An aqueous, organic dye derivatized SnO ₂ /TiO ₂ core/shell photoanode. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2969-2975.	10.3	89
4	Molecular Symmetry and Solution-Phase Structure Interrogated by Hyper-Rayleigh Depolarization Measurements: Elaborating Highly Hyperpolarizable <i>D</i> -Symmetric Chromophores. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 2978-2981.	13.8	59
5	Synthesis and photophysical characterization of porphyrin and porphyrin-Ru(ii) polypyridyl chromophore-catalyst assemblies on mesoporous metal oxides. <i>Chemical Science</i> , 2014, 5, 3115.	7.4	56
6	Layer-by-Layer Molecular Assemblies for Dye-Sensitized Photoelectrosynthesis Cells Prepared by Atomic Layer Deposition. <i>Journal of the American Chemical Society</i> , 2017, 139, 14518-14525.	13.7	55
7	Steering CO ₂ electroreduction toward ethanol production by a surface-bound Ru polypyridyl carbene catalyst on N-doped porous carbon. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 26353-26358.	7.1	55
8	The Roles of Molecular Structure and Effective Optical Symmetry in Evolving Dipolar Chromophoric Building Blocks to Potent Octopolar Nonlinear Optical Chromophores. <i>Journal of the American Chemical Society</i> , 2011, 133, 2884-2896.	13.7	54
9	Large Hyperpolarizabilities at Telecommunication-Relevant Wavelengths in Donor-Acceptor-Donor Nonlinear Optical Chromophores. <i>ACS Central Science</i> , 2016, 2, 954-966.	11.3	48
10	Controlling Vertical and Lateral Electron Migration Using a Bifunctional Chromophore Assembly in Dye-Sensitized Photoelectrosynthesis Cells. <i>Journal of the American Chemical Society</i> , 2018, 140, 6493-6500.	13.7	48
11	Modulating Hole Transport in Multilayered Photocathodes with Derivatized p-Type Nickel Oxide and Molecular Assemblies for Solar-Driven Water Splitting. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4374-4379.	4.6	47
12	Stabilized photoanodes for water oxidation by integration of organic dyes, water oxidation catalysts, and electron-transfer mediators. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8523-8528.	7.1	37
13	A Silicon-Based Heterojunction Integrated with a Molecular Excited State in a Water-Splitting Tandem Cell. <i>Journal of the American Chemical Society</i> , 2019, 141, 10390-10398.	13.7	34
14	Design of Coupled Porphyrin Chromophores with Unusually Large Hyperpolarizabilities. <i>Journal of Physical Chemistry C</i> , 2012, 116, 9724-9733.	3.1	33
15	Phosphonate-Derivatized Porphyrins for Photoelectrochemical Applications. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 3853-3860.	8.0	29
16	A Molecular Silane-Derivatized Ru(II) Catalyst for Photoelectrochemical Water Oxidation. <i>Journal of the American Chemical Society</i> , 2018, 140, 15062-15069.	13.7	29
17	Direct photoactivation of a nickel-based, water-reduction photocathode by a highly conjugated supramolecular chromophore. <i>Energy and Environmental Science</i> , 2018, 11, 447-455.	30.8	23
18	Electron-Withdrawing Boron Dipyrromethene Dyes As Visible Light Absorber/Sensitizers on Semiconductor Oxide Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7768-7776.	8.0	23

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19	Charge Transfer from Upconverting Nanocrystals to Semiconducting Electrodes: Optimizing Thermodynamic Outputs by Electronic Energy Transfer. <i>Journal of the American Chemical Society</i> , 2019, 141, 463-471.	13.7	19
20	<i>De Novo</i> Design, Solution Characterization, and Crystallographic Structure of an Abiological Mn ^{IV} -Porphyrin-Binding Protein Capable of Stabilizing a Mn(V) Species. <i>Journal of the American Chemical Society</i> , 2021, 143, 252-259.	13.7	19
21	Stable Molecular Surface Modification of Nanostructured, Mesoporous Metal Oxide Photoanodes by Silane and Click Chemistry. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 4560-4567.	8.0	18
22	Tetrazine derived mononuclear Ru(II)(acac) ₂ (L) (1), [Ru(II)(bpy) ₂ (L)](ClO ₄) ₂ (2) and [Ru(II)(bpy)(L) ₂](ClO ₄) ₂ (3) (L=3-amino-6-(3,5-dimethylpyrazol-1-yl)-1,2,4,5-tetrazine, acac=acetylacetonate, bpy=2,2'-bipyridine): syntheses, structures, spectra and redox properties. <i>Polyhedron</i> , 2005, 24, 333-342.	2.2	17
23	Crossing the bridge from molecular catalysis to a heterogeneous electrode in electrocatalytic water oxidation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 11153-11158.	7.1	17
24	Near IR nonlinear absorption of an organic supermolecule [Invited]. <i>Optical Materials Express</i> , 2011, 1, 1383.	3.0	16
25	Analysis of Homogeneous Water Oxidation Catalysis with Collector-Generator Cells. <i>Inorganic Chemistry</i> , 2016, 55, 512-517.	4.0	16
26	Stabilization of Ruthenium(II) Polypyridyl Chromophores on Mesoporous TiO ₂ Electrodes: Surface Reductive Electropolymerization and Silane Chemistry. <i>ACS Central Science</i> , 2019, 5, 506-514.	11.3	15
27	Fluoropolymer-Stabilized Chromophore-Catalyst Assemblies in Aqueous Buffer Solutions for Water Oxidation Catalysis. <i>ChemSusChem</i> , 2017, 10, 2380-2384.	6.8	14
28	Growth and Post-Deposition Treatments of SrTiO ₃ Films for Dye-Sensitized Photoelectrosynthesis Cell Applications. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 12282-12290.	8.0	12
29	Synthesis and Photophysical Properties of a Covalently Linked Porphyrin Chromophore-Ru(II) Water Oxidation Catalyst Assembly on SnO ₂ Electrodes. <i>Journal of Physical Chemistry C</i> , 2018, 122, 13455-13461.	3.1	11
30	Pathways Following Electron Injection: Medium Effects and Cross-Surface Electron Transfer in a Ruthenium-Based, Chromophore-Catalyst Assembly on TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2018, 122, 13017-13026.	3.1	10
31	Excitation energy-dependent photocurrent switching in a single-molecule photodiode. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 16198-16203.	7.1	10
32	Dye-Sensitized Nonstoichiometric Strontium Titanate Core-Shell Photocathodes for Photoelectrosynthesis Applications. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 15261-15269.	8.0	5
33	A Semiconductor-Mediator-Catalyst Artificial Photosynthetic System for Photoelectrochemical Water Oxidation. <i>Chemistry - A European Journal</i> , 2022, 28, e202102630.	3.3	4
34	Influence of Surface and Structural Variations in Donor-Acceptor-Donor Sensitizers on Photoelectrocatalytic Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 47499-47510.	8.0	3
35	Excited-State Dynamics and Nonlinear Optical Properties of Hyperpolarizable Chromophores Based on Conjugated Bis(terpyridyl)Ru(II) and Palladium and Platinum Porphyrinic Components: Impact of Heavy Metals upon Supermolecular Electro-Optic Properties. <i>Inorganic Chemistry</i> , 2021, 60, 15404-15412.	4.0	2