Dmitry E Polyansky

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2789431/publications.pdf

Version: 2024-02-01

52	2,694	29	51
papers	citations	h-index	g-index
		172443	182417

56	56	56	3688
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of Chloride Anions on the Synthesis and Enhanced Catalytic Activity of Silver Nanocoral Electrodes for CO₂ Electroreduction. ACS Catalysis, 2015, 5, 5349-5356.	11.2	310
2	Water Oxidation by a Ruthenium Complex with Noninnocent Quinone Ligands: Possible Formation of an Oâˆ’O Bond at a Low Oxidation State of the Metal. Inorganic Chemistry, 2008, 47, 1787-1802.	4.0	200
3	Water Oxidation by a Mononuclear Ruthenium Catalyst: Characterization of the Intermediates. Journal of the American Chemical Society, 2011, 133, 14649-14665.	13.7	180
4	Toward more efficient photochemical CO2 reduction: Use of scCO2 or photogenerated hydrides. Coordination Chemistry Reviews, 2010, 254, 2472-2482.	18.8	162
5	Unexpected Roles of Triethanolamine in the Photochemical Reduction of CO₂ to Formate by Ruthenium Complexes. Journal of the American Chemical Society, 2020, 142, 2413-2428.	13.7	115
6	Effects of a Proximal Base on Water Oxidation and Proton Reduction Catalyzed by Geometric Isomers of [Ru(tpy)(pynap)(OH₂)]²⁺. Angewandte Chemie - International Edition, 2011, 50, 12600-12604.	13.8	94
7	Photochemical and Radiolytic Production of an Organic Hydride Donor with a RuII Complex Containing an NAD+ Model Ligand. Angewandte Chemie - International Edition, 2007, 46, 4169-4172.	13.8	89
8	Striving Toward Noble-Metal-Free Photocatalytic Water Splitting: The Hydrogenated-Grapheneâ€“TiO₂ Prototype. Chemistry of Materials, 2015, 27, 6282-6296.	6.7	81
9	Mechanism of Hydride Donor Generation Using a Ru(II) Complex Containing an NAD⁺ Model Ligand: Pulse and Steady-State Radiolysis Studies. Inorganic Chemistry, 2008, 47, 3958-3968.	4.0	78
10	Characterization of Redox States of Ru(OH₂)(Q)(tpy)²⁺ (Q =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (3 Experimental and Theoretical Studies. Inorganic Chemistry, 2009, 48, 4372-4383.	4.0	73
11	Water Oxidation with Mononuclear Ruthenium(II) Polypyridine Complexes Involving a Direct Ru^{IV}â•O Pathway in Neutral and Alkaline Media. Inorganic Chemistry, 2013, 52, 8845-8850.	4.0	72
12	Calculation of thermodynamic hydricities and the design of hydride donors for CO ₂ reduction. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15657-15662.	7.1	71
13	Visible Light-Driven H₂ Production over Highly Dispersed Ruthenia on Rutile TiO₂ Nanorods. ACS Catalysis, 2016, 6, 407-417.	11.2	71
14	Mechanistic Studies of Hydrogen Evolution in Aqueous Solution Catalyzed by a Tertpyridineâ€“Amine Cobalt Complex. Inorganic Chemistry, 2015, 54, 4310-4321.	4.0	64
15	Mechanism of the Quenching of the Tris(bipyridine)ruthenium(II) Emission by Persulfate: Implications for Photoinduced Oxidation Reactions. Journal of Physical Chemistry A, 2013, 117, 10311-10319.	2.5	63
16	Efficient water oxidation with organometallic iridium complexes as precatalysts. Physical Chemistry Chemical Physics, 2014, 16, 11976.	2.8	63
17	Three-dimensional ruthenium-doped TiO₂ sea urchins for enhanced visible-light-responsive H₂ production. Physical Chemistry Chemical Physics, 2016, 18, 15972-15979.	2.8	56
18	Influence of a Gold(I)â^'Acetylide Subunit on the Photophysics of Re(Phen)(CO)3Cl. Inorganic Chemistry, 2005, 44, 3412-3421.	4.0	54

#	Article	IF	Citations
19	Photocatalytic CO₂ Reduction by Trigonal-Bipyramidal Cobalt(II) Polypyridyl Complexes: The Nature of Cobalt(I) and Cobalt(0) Complexes upon Their Reactions with CO₂, CO, or Proton. Inorganic Chemistry, 2018, 57, 5486-5498.	4.0	53
20	Hierarchical Heterogeneity at the CeO_{<i>x</i>}â€"TiO₂ Interface: Electronic and Geometric Structural Influence on the Photocatalytic Activity of Oxide on Oxide Nanostructures. Journal of Physical Chemistry C, 2015, 119, 2669-2679.	3.1	52
21	New Water Oxidation Chemistry of a Seven-Coordinate Ruthenium Complex with a Tetradentate Polypyridyl Ligand. Inorganic Chemistry, 2014, 53, 6904-6913.	4.0	48
22	Modification of CO₂ Reduction Activity of Nanostructured Silver Electrocatalysts by Surface Halide Anions. ACS Applied Energy Materials, 2019, 2, 102-109.	5.1	46
23	Photochemical Stereospecific Hydrogenation of a Ru Complex with an NAD⁺/NADH-Type Ligand. Inorganic Chemistry, 2009, 48, 11510-11512.	4.0	45
24	Diminished photoisomerization of active ruthenium water oxidation catalyst by anchoring to metal oxide electrodes. Journal of Catalysis, 2013, 307, 140-147.	6.2	39
25	Enabling light-driven water oxidation via a low-energy RuIVî€O intermediate. Physical Chemistry Chemical Physics, 2013, 15, 14058.	2.8	35
26	Understanding the Role of Inter- and Intramolecular Promoters in Electro- and Photochemical CO₂ Reduction Using Mn, Re, and Ru Catalysts. Accounts of Chemical Research, 2022, 55, 616-628.	15.6	34
27	Differences of pH-Dependent Mechanisms on Generation of Hydride Donors using Ru(II) Complexes Containing Geometric Isomers of NAD⁺ Model Ligands: NMR and Radiolysis Studies in Aqueous Solution. Inorganic Chemistry, 2010, 49, 8034-8044.	4.0	33
28	Self-Assembled Bilayers as an Anchoring Strategy: Catalysts, Chromophores, and Chromophore-Catalyst Assemblies. Journal of the American Chemical Society, 2019, 141, 8020-8024.	13.7	32
29	Recombination of Photogenerated Lophyl Radicals in Imidazoliumâ€Based Ionic Liquids. ChemPhysChem, 2009, 10, 3112-3118.	2.1	24
30	Application of Pulse Radiolysis to Mechanistic Investigations of Catalysis Relevant to Artificial Photosynthesis. ChemSusChem, 2017, 10, 4359-4373.	6.8	24
31	Enhanced, robust light-driven H₂ generation by gallium-doped titania nanoparticles. Physical Chemistry Chemical Physics, 2018, 20, 2104-2112.	2.8	23
32	Reactivity of a fac-ReCl(Î±-diimine)(CO)₃complex with an NAD⁺model ligand toward CO₂reduction. Chemical Communications, 2014, 50, 728-730.	4.1	22
33	Kinetics and Thermodynamics of Small Molecule Binding to Pincer-PCP Rhodium(I) Complexes. Inorganic Chemistry, 2013, 52, 4160-4172.	4.0	18
34	Unraveling the Hydrogenation of TiO₂ and Graphene Oxide/TiO₂ Composites in Real Time by in Situ Synchrotron X-ray Powder Diffraction and Pair Distribution Function Analysis. Journal of Physical Chemistry C, 2016, 120, 3472-3482.	3.1	16
35	Role of Bimetallic Interactions in the Enhancement of Catalytic CO₂ Reduction by a Macrocyclic Cobalt Catalyst. ACS Catalysis, 2022, 12, 1706-1717.	11.2	15
36	Observation of Triplet Intraligand Excited States through Nanosecond Step-Scan Fourier Transform Infrared Spectroscopy. Inorganic Chemistry, 2006, 45, 2370-2372.	4.0	14

#	Article	IF	Citations
37	Ultrafast transient absorption spectrum of the room temperature Ionic liquid 1-hexyl-3-methylimidazolium bromide: Confounding effects of photo-degradation. Radiation Physics and Chemistry, 2015, 117, 78-82.	2.8	13
38	Photodecomposition of Organic Peroxides Containing Coumarin Chromophore:Â Spectroscopic Studies. Journal of Physical Chemistry A, 2005, 109, 2793-2800.	2.5	12
39	Steric effect for proton, hydrogen-atom, and hydride transfer reactions with geometric isomers of NADHâ€"model ruthenium complexes. Faraday Discussions, 2012, 155, 129-144.	3.2	12
40	Role of Hydrogen Bonding in Photoinduced Electronâ€"Proton Transfer from Phenols to a Polypyridine Ru Complex with a Proton-Accepting Ligand. Journal of Physical Chemistry Letters, 2017, 8, 4043-4048.	4.6	12
41	Delocalization of Free Electron Density through Phenyleneâ^'Ethynylene:Â Structural Changes Studied by Time-Resolved Infrared Spectroscopy1. Journal of the American Chemical Society, 2005, 127, 13452-13453.	13.7	11
42	High-Redox-Potential Chromophores for Visible-Light-Driven Water Oxidation at Low pH. ACS Catalysis, 2020, 10, 580-585.	11.2	11
43	Photochemical CO₂ Reduction Using Rhenium(I) Tricarbonyl Complexes with Bipyridylâ€Type Ligands with and without Second Coordination Sphere Effects. ChemPhotoChem, 2021, 5, 526-537.	3.0	11
44	Application of Pulse Radiolysis to Mechanistic Investigations of Water Oxidation Catalysis. European Journal of Inorganic Chemistry, 2014, 2014, 619-634.	2.0	10
45	Molecular Catalysts with Intramolecular Reâ€"O Bond for Electrochemical Reduction of Carbon Dioxide. Inorganic Chemistry, 2020, 59, 12187-12199.	4.0	9
46	Solvent-dependent transition from concerted electronâ€"proton to proton transfer in photoinduced reactions between phenols and polypyridine Ru complexes with proton-accepting sites. Dalton Transactions, 2018, 47, 15917-15928.	3.3	8
47	Comprehensive Mechanisms of Electrocatalytic CO₂ Reduction by [Ir(bip)(ppy)(CH₃CN)](PF₆)₂. ACS Catalysis, 2020, 10, 6497-6509.	11.2	8
48	Photodecomposition of Peroxides Containing a 1,4-Bis(phenylethynyl)benzene Chromophore. Journal of Physical Chemistry A, 2006, 110, 4969-4978.	2.5	4
49	Structural and Electronic Influences on Rates of Tertpyridineâ^'Amine Co^{III}â^'H Formation During Catalytic H₂ Evolution in an Aqueous Environment. ChemPhysChem, 2021, 22, 1478-1487.	2.1	3
50	Hydrogen bonding between hydroxylic donors and MLCT-excited Ru(bpy)₂(bpz)²⁺ complex: implications for photoinduced electronâ€"proton transfer. Chemical Communications, 2019, 55, 5870-5873.	4.1	2
51	Photochemical CO 2 Reduction Using Rhenium(I) Tricarbonyl Complexes with Bipyridylâ€Type Ligands with and without Second Coordination Sphere Effects. ChemPhotoChem, 2021, 5, 494-494.	3.0	1
52	Electrocatalysts for Carbon Dioxide Reduction. , 2014, , 431-437.		0