Javier J Concepcion

List of Publications by Year
in descending order

96 papers	9,065 citations	34105 52 h-index	39675 94 g-index
99 all docs	99 docs citations	99 times ranked	6285 citing authors

#	Article	IF	Citations
1	Mechanistic Investigation of the Aerobic Oxidation of 2-pyridylacetate Coordinated to a Ru(II) Polypyridyl Complex. Dalton Transactions, 2021, 50, 15248-15259.	3.3	3
2	Plasma-Initiated Graft Polymerization of Acrylic Acid onto Fluorine-Doped Tin Oxide as a Platform for Immobilization of Water-Oxidation Catalysts. ACS Applied Materials & Interfaces, 2021, 13, 14077-14090.	8.0	10
3	Proton-Coupled Group Transfer Enables Concerted Protonation Pathways Relevant to Small-Molecule Activation. Inorganic Chemistry, 2021, 60, 16953-16965.	4.0	8
4	Dye-sensitized solar cells strike back. Chemical Society Reviews, 2021, 50, 12450-12550.	38.1	240
5	Photodriven water oxidation initiated by a surface bound chromophore-donor-catalyst assembly. Chemical Science, 2021, 12, 14441-14450.	7.4	16
6	High-Redox-Potential Chromophores for Visible-Light-Driven Water Oxidation at Low pH. ACS Catalysis, 2020, 10, 580-585.	11.2	11
7	Oxygen Atom Transfer as an Alternative Pathway for Oxygenâ€“Oxygen Bond Formation. Inorganic Chemistry, 2020, 59, 5966-5974.	4.0	12
8	Self-Assembled Chromophoreâ€“Catalyst Bilayer for Water Oxidation in a Dye-Sensitized Photoelectrosynthesis Cell. Journal of Physical Chemistry C, 2019, 123, 30039-30045.	3.1	22
9	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
10	Rapid identification of homogeneous O2 evolution catalysts and comparative studies of Ru(II)-carboxamides vs. Ru(II)-carboxylates in water-oxidation. Journal of Catalysis, 2019, 369, 10-20.	6.2	11
11	Improved Stability and Performance of Visible Photoelectrochemical Water Splitting on Solution-Processed Organic Semiconductor Thin Films by Ultrathin Metal Oxide Passivation. Chemistry of Materials, 2018, 30, 324-335.	6.7	29
12	Oâ€“O Radical Coupling: From Detailed Mechanistic Understanding to Enhanced Water Oxidation Catalysis. Inorganic Chemistry, 2018, 57, 10533-10542.	4.0	59
13	Pathways Following Electron Injection: Medium Effects and Cross-Surface Electron Transfer in a Ruthenium-Based, Chromophoreâ€“Catalyst Assembly on TiO₂. Journal of Physical Chemistry C, 2018, 122, 13017-13026.	3.1	10
14	Light-Driven Water Splitting by a Covalently Linked Ruthenium-Based Chromophoreâ€“Catalyst Assembly. ACS Energy Letters, 2017, 2, 124-128.	17.4	75
15	Oâ€“O bond formation in ruthenium-catalyzed water oxidation: single-site nucleophilic attack vs. Oâ€“O radical coupling. Chemical Society Reviews, 2017, 46, 6170-6193.	38.1	202
16	Lability and Basicity of Bipyridine-Carboxylate-Phosphonate Ligand Accelerate Single-Site Water Oxidation by Ruthenium-Based Molecular Catalysts. Journal of the American Chemical Society, 2017, 139, 15347-15355.	13.7	76
17	Water Oxidation by Ruthenium Complexes Incorporating Multifunctional Bipyridyl Diphosphonate Ligands. Angewandte Chemie - International Edition, 2016, 55, 8067-8071.	13.8	67
18	Water Oxidation by Ruthenium Complexes Incorporating Multifunctional Bipyridyl Diphosphonate Ligands. Angewandte Chemie, 2016, 128, 8199-8203.	2.0	22

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19	Proton-Coupled Electron Transfer in a Strongly Coupled Photosystem II-Inspired Chromophoreâ€“Imidazoleâ€“Phenol Complex: Stepwise Oxidation and Concerted Reduction. Journal of the American Chemical Society, 2016, 138, 11536-11549.	13.7	66
20	Manipulating the Rate-Limiting Step in Water Oxidation Catalysis by Ruthenium Bipyridineâ€“Dicarboxylate Complexes. Inorganic Chemistry, 2016, 55, 12024-12035.	4.0	55
21	Mechanism of water oxidation by [Ru(bda)(L)₂]: the return of the â€œblue dimerâ€• Chemical Communications, 2015, 51, 4105-4108.	4.1	67
22	Base-enhanced catalytic water oxidation by a carboxylateâ€“bipyridine Ru(II) complex. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4935-4940.	7.1	124
23	Varying the Electronic Structure of Surface-Bound Ruthenium(II) Polypyridyl Complexes. Inorganic Chemistry, 2015, 54, 460-469.	4.0	56
24	Controlling Ground and Excited State Properties through Ligand Changes in Ruthenium Polypyridyl Complexes. Inorganic Chemistry, 2014, 53, 5637-5646.	4.0	53
25	Photophysical Characterization of a Chromophore/Water Oxidation Catalyst Containing a Layer-by-Layer Assembly on Nanocrystalline TiO₂ Using Ultrafast Spectroscopy. Journal of Physical Chemistry A, 2014, 118, 10301-10308.	2.5	45
26	Selective Electrocatalytic Oxidation of a Reâ€“Methyl Complex to Methanol by a Surface-Bound Ru^{II} Polypyridyl Catalyst. Journal of the American Chemical Society, 2014, 136, 15845-15848.	13.7	13
27	Synthesis and photophysical characterization of porphyrin and porphyrinâ€“Ru(ii) polypyridyl chromophoreâ€“catalyst assemblies on mesoporous metal oxides. Chemical Science, 2014, 5, 3115.	7.4	56
28	New Water Oxidation Chemistry of a Seven-Coordinate Ruthenium Complex with a Tetradentate Polypyridyl Ligand. Inorganic Chemistry, 2014, 53, 6904-6913.	4.0	48
29	Synthesis and Electrocatalytic Water Oxidation by Electrode-Bound Helical Peptide Chromophoreâ€“Catalyst Assemblies. Inorganic Chemistry, 2014, 53, 8120-8128.	4.0	35
30	Visible Light Driven Benzyl Alcohol Dehydrogenation in a Dye-Sensitized Photoelectrosynthesis Cell. Journal of the American Chemical Society, 2014, 136, 9773-9779.	13.7	80
31	Electrocatalysis on Oxide-Stabilized, High-Surface Area Carbon Electrodes. ACS Catalysis, 2013, 3, 1850-1854.	11.2	14
32	Inverse Kinetic Isotope Effect in the Excited-State Relaxation of a Ru(II)â€“Aquo Complex: Revealing the Impact of Hydrogen-Bond Dynamics on Nonradiative Decay. Journal of the American Chemical Society, 2013, 135, 12500-12503.	13.7	28
33	Electronic Structure Assessment: Combined Density Functional Theory Calculations and Ru L2,3-Edge X-ray Absorption Near-Edge Spectroscopy of Water Oxidation Catalyst. Journal of Physical Chemistry C, 2013, 117, 18994-19001.	3.1	7
34	Synthesis of Phosphonic Acid Derivatized Bipyridine Ligands and Their Ruthenium Complexes. Inorganic Chemistry, 2013, 52, 12492-12501.	4.0	114
35	Application of the Rotating Ring-Disc-Electrode Technique to Water Oxidation by Surface-Bound Molecular Catalysts. Inorganic Chemistry, 2013, 52, 10744-10746.	4.0	44
36	Water Electrolysis with a Homogeneous Catalyst in an Electrochemical Cell. Journal of the Electrochemical Society, 2013, 160, F1143-F1150.	2.9	5

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37	Solar water splitting in a molecular photoelectrochemical cell. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20008-20013.	7.1	203
38	Spectroscopy and Dynamics of Phosphonate-Derivatized Ruthenium Complexes on TiO₂. Journal of Physical Chemistry C, 2013, 117, 812-824.	3.1	43
39	A Sensitized Nb₂O₅ Photoanode for Hydrogen Production in a Dye-Sensitized Photoelectrosynthesis Cell. Chemistry of Materials, 2013, 25, 122-131.	6.7	66
40	Experimental demonstration of radicaloid character in a Ru ^V =O intermediate in catalytic water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3765-3770.	7.1	77
41	Visualization of cation diffusion at the TiO2 interface in dye sensitized photoelectrosynthesis cells (DSPEC). Energy and Environmental Science, 2013, 6, 1240.	30.8	25
42	Water Oxidation and Oxygen Monitoring by Cobalt-Modified Fluorine-Doped Tin Oxide Electrodes. Journal of the American Chemical Society, 2013, 135, 8432-8435.	13.7	96
43	Redox Mediator Effect on Water Oxidation in a Ruthenium-Based Chromophoreâ€“Catalyst Assembly. Journal of the American Chemical Society, 2013, 135, 2080-2083.	13.7	70
44	Coordination Chemistry of Single-Site Catalyst Precursors in Reductively Electropolymerized Vinylbipyridine Films. Inorganic Chemistry, 2013, 52, 4747-4749.	4.0	9
45	Accumulation of Multiple Oxidative Equivalents at a Single Site by Cross-Surface Electron Transfer on TiO₂. Journal of the American Chemical Society, 2013, 135, 11587-11594.	13.7	68
46	Mechanism of Catalytic Water Oxidation by the Ruthenium Blue Dimer Catalyst: Comparative Study in D2O versus H2O. Materials, 2013, 6, 392-409.	2.9	30
47	Crossing the divide between homogeneous and heterogeneous catalysis in water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20918-20922.	7.1	123
48	Accelerating slow excited state proton transfer. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 876-880.	7.1	9
49	Lowâ€Overpotential Water Oxidation by a Surfaceâ€Bound Rutheniumâ€Chromophoreâ€“Rutheniumâ€Catalyst Assembly. Angewandte Chemie - International Edition, 2013, 52, 13580-13583.	13.8	72
50	Theoretical study of catalytic mechanism for single-site water oxidation process. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15669-15672.	7.1	51
51	Photoinduced Electron Transfer in a Chromophoreâ€“Catalyst Assembly Anchored to TiO₂. Journal of the American Chemical Society, 2012, 134, 19189-19198.	13.7	116
52	Selfâ€Assembled Bilayer Films of Ruthenium(II)/Polypyridyl Complexes through Layerâ€byâ€Layer Deposition on Nanostructured Metal Oxides. Angewandte Chemie - International Edition, 2012, 51, 12782-12785.	13.8	118
53	Chemical approaches to artificial photosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15560-15564.	7.1	366
54	Photostability of Phosphonate-Derivatized, Ru^{II} Polypyridyl Complexes on Metal Oxide Surfaces. ACS Applied Materials & Interfaces, 2012, 4, 1462-1469.	8.0	157

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55	Self-Assembled Bilayers on Indiumâ€“Tin Oxide (SAB-ITO) Electrodes: A Design for Chromophoreâ€“Catalyst Photoanodes. Inorganic Chemistry, 2012, 51, 8637-8639.	4.0	33
56	Structureâ€“Property Relationships in Phosphonate-Derivatized, Ru^{II} Polypyridyl Dyes on Metal Oxide Surfaces in an Aqueous Environment. Journal of Physical Chemistry C, 2012, 116, 14837-14847.	3.1	156
57	Nonaqueous Electrocatalytic Oxidation of the Alkylaromatic Ethylbenzene by a Surface Bound Ru^V(O) Catalyst. ACS Catalysis, 2012, 2, 716-719.	11.2	34
58	Sensitized Photodecomposition of Organic Bisphosphonates By Singlet Oxygen. Journal of the American Chemical Society, 2012, 134, 16975-16978.	13.7	10
59	Structure and Electronic Configurations of the Intermediates of Water Oxidation in Blue Ruthenium Dimer Catalysis. Journal of the American Chemical Society, 2012, 134, 4625-4636.	13.7	68
60	Electronic Structure of the Water Oxidation Catalyst <i>cis</i>,<i>cis</i>-[(bpy)₂(H₂O)Ru^{III}ORu^{III}(OH₂)(bpy)<sub>2</sub The Blue Dimer. Inorganic Chemistry, 2012, 51, 1345-1358.	4.0	51
61	Water Oxidation Intermediates Applied to Catalysis: Benzyl Alcohol Oxidation. Journal of the American Chemical Society, 2012, 134, 3972-3975.	13.7	79
62	The role of proton coupled electron transfer in water oxidation. Energy and Environmental Science, 2012, 5, 7704.	30.8	198
63	An Amide-Linked Chromophoreâ€“Catalyst Assembly for Water Oxidation. Inorganic Chemistry, 2012, 51, 6428-6430.	4.0	60
64	Interfacial Dynamics and Solar Fuel Formation in Dyeâ€Sensitized Photoelectrosynthesis Cells. ChemPhysChem, 2012, 13, 2882-2890.	2.1	41
65	Splitting CO ₂ into CO and O ₂ by a single catalyst. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15606-15611.	7.1	168
66	Multiple Pathways for Benzyl Alcohol Oxidation by RuVâ•O3+and RuIVâ•O2+. Inorganic Chemistry, 2011, 50, 1167-1169.	4.0	30
67	Structural and pH Dependence of Excited State PCET Reactions Involving Reductive Quenching of the MLCT Excited State of [Ru^{II}(bpy)₂(bpz)]²⁺ by Hydroquinones. Journal of Physical Chemistry A, 2011, 115, 3346-3356.	2.5	37
68	Photoinduced Stepwise Oxidative Activation of a Chromophoreâ€“Catalyst Assembly on TiO₂. Journal of Physical Chemistry Letters, 2011, 2, 1808-1813.	4.6	93
69	Interfacial Electron Transfer Dynamics for [Ru(bpy)₂((4,4â€²-PO₃H₂)₂bpy)]²⁺ Sensitized TiO₂ in a Dye-Sensitized Photoelectrosynthesis Cell: Factors Influencing Efficiency and Dynamics. Journal of Physical Chemistry C, 2011, 115, 7081-7091.	3.1	56
70	Rapid catalyticwateroxidation by a single site, Rucarbenecatalyst. Dalton Transactions, 2011, 40, 3789-3792.	3.3	63
71	Understanding the Electronic Structure of 4d Metal Complexes: From Molecular Spinors to L-Edge Spectra of a di-Ru Catalyst. Journal of the American Chemical Society, 2011, 133, 15786-15794.	13.7	50
72	Interfacial Electron Transfer Dynamics Following Laser Flash Photolysis of [Ru(bpy)₂((4,4â€²â€PO₃H₂)₂bpy)]²⁺ in TiO₂ Nanoparticle Films in Aqueous Environments. ChemSusChem, 2011, 4, 216-227.	6.8	71

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73	Making solar fuels by artificial photosynthesis. Pure and Applied Chemistry, 2011, 83, 749-768.	1.9	123
74	Proton-coupled electron transfer at modified electrodes by multiple pathways. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E1461-9.	7.1	60
75	Concerted electron-proton transfer in the optical excitation of hydrogen-bonded dyes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8554-8558.	7.1	99
76	Concerted O atomâ€“proton transfer in the Oâ€”O bond forming step in water oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7225-7229.	7.1	295
77	Mechanism of Water Oxidation by Single-Site Ruthenium Complex Catalysts. Journal of the American Chemical Society, 2010, 132, 1545-1557.	13.7	443
78	Nonaqueous Catalytic Water Oxidation. Journal of the American Chemical Society, 2010, 132, 17670-17673.	13.7	141
79	Catalytic Water Oxidation by Single-Site Ruthenium Catalysts. Inorganic Chemistry, 2010, 49, 1277-1279.	4.0	298
80	Catalytic water oxidation on derivatized nanoITO. Dalton Transactions, 2010, 39, 6950.	3.3	91
81	Catalytic and Surfaceâ€Electrocatalytic Water Oxidation by Redox Mediatorâ€“Catalyst Assemblies. Angewandte Chemie - International Edition, 2009, 48, 9473-9476.	13.8	154
82	The Preparation, Characterization and X-ray Structural Analysis of Tetrakis[1-Methyl-3-(2-Propyl)-2(3H)-Imidazolethione]Cadmium(II) Hexafluorophosphate. Journal of Chemical Crystallography, 2009, 39, 581-584.	1.1	5
83	Single-Site, Catalytic Water Oxidation on Oxide Surfaces. Journal of the American Chemical Society, 2009, 131, 15580-15581.	13.7	234
84	Making Oxygen with Ruthenium Complexes. Accounts of Chemical Research, 2009, 42, 1954-1965.	15.6	788
85	Observation of Three Intervalenceâ€Transfer Bands for a Classâ€…IIâ€“III Mixedâ€Valence Complex of Ruthenium. Angewandte Chemie - International Edition, 2008, 47, 503-506.	13.8	60
86	One Site is Enough. Catalytic Water Oxidation by [Ru(tpy)(bpm)(OH₂)]²⁺ and [Ru(tpy)(bpz)(OH₂)]²⁺. Journal of the American Chemical Society, 2008, 130, 16462-16463.	13.7	628
87	Mechanisms of Water Oxidation from the Blue Dimer to Photosystem II. Inorganic Chemistry, 2008, 47, 1727-1752.	4.0	385
88	Mediator-assisted water oxidation by the ruthenium â€œblue dimerâ€<i>cis</i>,<i>cis</i>-[(bpy)₂(H₂O)RuORu(OH₂)(bpy)₂]⁴⁺. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17632-17635.	7.1	113
89	Probing the localized-to-delocalized transition. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 163-175.	3.4	50
90	Excited-State Quenching by Proton-Coupled Electron Transfer. Journal of the American Chemical Society, 2007, 129, 6968-6969.	13.7	104

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91	Vibrational and structural mapping of [Os(bpy)3]3+/2+ and [Os(phen)3]3+/2+. Inorganica Chimica Acta, 2007, 360, 1143-1153.	2.4	23
92	Influence of ligand structure and molecular geometry on the properties of d6 polypyridinic transition metal complexes. Chemical Physics, 2006, 326, 54-70.	1.9	31
93	The preparation, characterization and X-ray structural analysis of tetrakis[1-methyl-3-(2-propyl)-2(3H)-imidazolethione]zinc(II) tetrafluoroborate and tetrakis[1-methyl-3-(1-butyl)-2(3H)- imidazolethione]zinc(II) tetrafluoroborate. Journal of Chemical Crystallography, 2006, 36, 453-457.	1.1	14
94	Synthesis and reactivity of new methylallylpalladium(II) complexes with bidentate 2-(methylthio-N-benzylidene)anilines. Journal of Organometallic Chemistry, 2004, 689, 395-404.	1.8	4
95	Trans Ruthenium(II) Complexes with NH-Bridged Tetradentate Symmetric and Asymmetric Polypyridyl Ligands. Inorganic Chemistry, 2002, 41, 5937-5939.	4.0	16
96	ELECTRONIC EFFECTS OF DONOR AND ACCEPTOR SUBSTITUENTS ON DIPYRIDO(3,2-a:2â€²,3â€²-c)PHENAZINE (dppz). Journal of Coordination Chemistry, 2001, 54, 323-336.	2.2	27