

Roberto Argazzi

List of Publications by Year in descending order

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84
papers

5,399
citations

81743

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72
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87
all docs

87
docs citations

87
times ranked

5826
citing authors

#	ARTICLE	IF	CITATIONS
1	Testing of dye sensitized TiO ₂ solar cells I: Experimental photocurrent output and conversion efficiencies. <i>Solar Energy Materials and Solar Cells</i> , 1994, 32, 259-272.	3.0	317
2	Phosphonate-Based Bipyridine Dyes for Stable Photovoltaic Devices. <i>Inorganic Chemistry</i> , 2001, 40, 6073-6079.	1.9	303
3	Molecular and supramolecular sensitization of nanocrystalline wide band-gap semiconductors with mononuclear and polynuclear metal complexes. <i>Chemical Society Reviews</i> , 2000, 29, 87-96.	18.7	259
4	Nanostructured photoelectrodes based on WO ₃ : applications to photooxidation of aqueous electrolytes. <i>Chemical Society Reviews</i> , 2013, 42, 2228-2246.	18.7	250
5	Efficient Dye-Sensitized Solar Cells Using Red Turnip and Purple Wild Sicilian Prickly Pear Fruits. <i>International Journal of Molecular Sciences</i> , 2010, 11, 254-267.	1.8	233
6	Design of molecular dyes for application in photoelectrochemical and electrochromic devices based on nanocrystalline metal oxide semiconductors. <i>Coordination Chemistry Reviews</i> , 2004, 248, 1299-1316.	9.5	218
7	Sensitization of Nanocrystalline TiO ₂ with Black Absorbers Based on Os and Ru Polypyridine Complexes. <i>Journal of the American Chemical Society</i> , 2005, 127, 15342-15343.	6.6	203
8	Ruthenium polyoxometalate water splitting catalyst: very fast hole scavenging from photogenerated oxidants. <i>Chemical Communications</i> , 2010, 46, 3152.	2.2	165
9	Electronic coupling in cyano-bridged ruthenium polypyridine complexes and role of electronic effects on cyanide stretching frequencies. <i>Inorganic Chemistry</i> , 1992, 31, 5260-5267.	1.9	164
10	Long-Lived Photoinduced Charge Separation across Nanocrystalline TiO ₂ Interfaces. <i>Journal of the American Chemical Society</i> , 1995, 117, 11815-11816.	6.6	163
11	Natural dye sensitizers for photoelectrochemical cells. <i>Energy and Environmental Science</i> , 2009, 2, 1162.	15.6	162
12	Efficient Photoelectrochemical Water Splitting by Anodically Grown WO ₃ Electrodes. <i>Langmuir</i> , 2011, 27, 7276-7284.	1.6	158
13	The role of transition metal complexes in dye sensitized solar devices. <i>Coordination Chemistry Reviews</i> , 2013, 257, 1472-1492.	9.5	157
14	Light-Induced Charge Separation across Ru(II)-Modified Nanocrystalline TiO ₂ Interfaces with Phenothiazine Donors. <i>Journal of Physical Chemistry B</i> , 1997, 101, 2591-2597.	1.2	149
15	Remote Interfacial Electron Transfer from Supramolecular Sensitizers. <i>Inorganic Chemistry</i> , 1997, 36, 2-3.	1.9	129
16	Efficient Light-to-Electrical Energy Conversion with Dithiocarbamate ²⁻ Ruthenium Polypyridyl Sensitizers. <i>Inorganic Chemistry</i> , 1998, 37, 4533-4537.	1.9	120
17	Efficient Non-corrosive Electron-Transfer Mediator Mixtures for Dye-Sensitized Solar Cells. <i>Journal of the American Chemical Society</i> , 2006, 128, 9996-9997.	6.6	118
18	Modification of Nanocrystalline WO ₃ with a Dicationic Perylene Bisimide: Applications to Molecular Level Solar Water Splitting. <i>Journal of the American Chemical Society</i> , 2015, 137, 4630-4633.	6.6	114

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19	Electronic coupling between remote metal centers in cyanobridged polynuclear complexes. <i>Coordination Chemistry Reviews</i> , 1993, 125, 283-292.	9.5	109
20	Preparation and photoelectrochemical characterization of a red sensitive osmium complex containing 4,4'-bis(2,2'-tricarboxy-6,6'-terpyridine) and cyanide ligands. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2004, 164, 15-21.	1.7	81
21	Photocatalytic Hydrogen Evolution with a Self-Assembling Reductant-Sensitizer-Catalyst System. <i>Chemistry - A European Journal</i> , 2013, 19, 9261-9271.	1.7	75
22	Application of transient infrared spectroscopy to intramolecular energy transfer in [(phen)(CO) ₃ ReI(NC)RuII(CN)(bpy) ₂] ⁺ . <i>Journal of the American Chemical Society</i> , 1993, 115, 10996-10997.	6.6	67
23	Vibrational and Electronic Spectroscopy of Electronically Excited Polychromophoric Ruthenium(II) Complexes. <i>Inorganic Chemistry</i> , 1994, 33, 1652-1659.	1.9	67
24	Intramolecular Energy Transfer Processes in Binuclear Re ^{IV} O ₅ Complexes. <i>Inorganic Chemistry</i> , 2001, 40, 6885-6891.	1.9	57
25	Long-range energy transfer in oligomeric metal complex assemblies. <i>Journal of the American Chemical Society</i> , 1992, 114, 8727-8729.	6.6	55
26	Electron Transfer through Norbornadiene and Quadricyclane Moieties as a Model for Molecular Switching. <i>Inorganic Chemistry</i> , 1996, 35, 711-714.	1.9	55
27	Solid-State Photochromic Device Based on Nanocrystalline TiO ₂ Functionalized with Electron Donor-Acceptor Species. <i>Inorganic Chemistry</i> , 2005, 44, 9619-9621.	1.9	54
28	Combination of Cobalt and Iron Polypyridine Complexes for Improving the Charge Separation and Collection in Ru(terpyridine) ₂ -Sensitized Solar Cells. <i>Chemistry - A European Journal</i> , 2010, 16, 2611-2618.	1.7	54
29	Photoelectrochemical Behavior of Sensitized TiO ₂ Photoanodes in an Aqueous Environment: Application to Hydrogen Production. <i>Inorganic Chemistry</i> , 2010, 49, 3320-3328.	1.9	52
30	Molecular Rectification by a Bimetallic Ru ^{IV} O ₅ Compound Anchored to Nanocrystalline TiO ₂ . <i>Inorganic Chemistry</i> , 2000, 39, 1342-1343.	1.9	51
31	Solvatochromic Dye Sensitized Nanocrystalline Solar Cells. <i>Nano Letters</i> , 2002, 2, 625-628.	4.5	50
32	6-N,N-Dimethylamino-2,3-naphthalimide: A New Environment-Sensitive Fluorescent Probe in Î ⁻ - and Î ⁴ -Selective Opioid Peptides. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 3653-3658.	2.9	48
33	Mesostructured self-assembled titania films for photovoltaic applications. <i>Microporous and Mesoporous Materials</i> , 2006, 88, 304-311.	2.2	48
34	Design of supramolecular systems for spectral sensitization of semiconductors. <i>Solar Energy Materials and Solar Cells</i> , 1994, 32, 229-244.	3.0	47
35	Electrochromic Devices Based on Binuclear Mixed Valence Compounds Adsorbed on Nanocrystalline Semiconductors. <i>Inorganic Chemistry</i> , 2003, 42, 3966-3968.	1.9	47
36	Comparative Evaluation of Catalytic Counter Electrodes for Co(III)/(II) Electron Shuttles in Regenerative Photoelectrochemical Cells. <i>Journal of Physical Chemistry C</i> , 2013, 117, 5142-5153.	1.5	45

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37	Photosensitization of wide bandgap semiconductors with antenna molecules. <i>Solar Energy Materials and Solar Cells</i> , 1995, 38, 187-198.	3.0	43
38	New Components for Dye-Sensitized Solar Cells. <i>International Journal of Photoenergy</i> , 2010, 2010, 1-16.	1.4	43
39	Some aspects of the charge transfer dynamics in nanostructured WO ₃ films. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2995-3006.	5.2	40
40	Photoinduced intramolecular energy transfer processes in polynuclear ruthenium(II) polypyridine complexes. Design of long chain cyanobridged polynuclear species featuring vectorial energy transfer. <i>Coordination Chemistry Reviews</i> , 1991, 111, 261-266.	9.5	38
41	Sensitization of Nanocrystalline TiO ₂ with Multibranched Organic Dyes and Co(III)/(II) Mediators: Strategies to Improve Charge Collection Efficiency. <i>Journal of Physical Chemistry C</i> , 2013, 117, 19885-19896.	1.5	34
42	Photoinduced energy and electron transfer in inorganic covalently linked systems. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1994, 82, 191-202.	2.0	33
43	4-Phenylpyridine as ancillary ligand in ruthenium(II) polypyridyl complexes for sensitization of n-type TiO ₂ electrodes. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1998, 115, 239-242.	2.0	33
44	Influence of Porphyrinic Structure on Electron Transfer Processes at the Electrolyte/Dye/TiO ₂ Interface in PSSCs: a Comparison between meso Push-Pull and π -Pyrrholic Architectures. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 15841-15852.	4.0	32
45	Efficient solar water oxidation using photovoltaic devices functionalized with earth-abundant oxygen evolving catalysts. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 13083.	1.3	30
46	Genetic effect of zirconium oxide coating on osteoblast-like cells. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2008, 84B, 550-558.	1.6	28
47	Size sorting of citrate reduced gold nanoparticles by sedimentation field-flow fractionation. <i>Journal of Chromatography A</i> , 2009, 1216, 9088-9098.	1.8	28
48	Highly Selective Fluorescent Analogue of the Potent μ -Opioid Receptor Antagonist Dmt-Tic. <i>Journal of Medicinal Chemistry</i> , 2004, 47, 6541-6546.	2.9	26
49	Photocatalysis with Na ₄ W ₁₀ O ₃₂ in water system: Formation and reactivity of OH radicals. <i>Journal of Molecular Catalysis A</i> , 2013, 372, 23-28.	4.8	26
50	Hematite Photoanodes Modified with an Fe ^{III} Water Oxidation Catalyst. <i>ChemPhysChem</i> , 2014, 15, 1164-1174.	1.0	26
51	Record power conversion efficiencies for iron(II)-NHC-sensitized DSSCs from rational molecular engineering and electrolyte optimization. <i>Journal of Materials Chemistry A</i> , 2021, 9, 3540-3554.	5.2	25
52	Dye-sensitized solar cells based on PEDOP as a hole conductive medium. <i>Inorganica Chimica Acta</i> , 2008, 361, 627-634.	1.2	24
53	Photoinduced energy transfer in a rod-like dinuclear Ru(II) complex containing bis-pyridyl-1,3,5-triazine ligands. <i>Dalton Transactions</i> , 2009, , 3964.	1.6	24
54	Reverse bias degradation in dye solar cells. <i>Applied Physics Letters</i> , 2012, 101, 123302.	1.5	24

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55	On the stability of manganese tris(\hat{I}^2 -diketonate) complexes as redox mediators in DSSCs. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 5949-5956.	1.3	24
56	Perylene Diimide Aggregates on Sb-Doped SnO ₂ : Charge Transfer Dynamics Relevant to Solar Fuel Generation. <i>Journal of Physical Chemistry C</i> , 2017, 121, 17737-17745.	1.5	22
57	Recombination and regeneration dynamics in FeNHC($\langle scp \rangle ii \langle /scp \rangle$)-sensitized solar cells. <i>Chemical Communications</i> , 2020, 56, 543-546.	2.2	21
58	Efficient Anodically Grown WO ₃ for Photoelectrochemical Water Splitting. <i>Energy Procedia</i> , 2012, 22, 127-136.	1.8	20
59	Photoelectrochemical degradation of pharmaceuticals at \hat{I}^{25} modified WO ₃ interfaces. <i>Catalysis Today</i> , 2020, 340, 302-310.	2.2	20
60	Charge injection into nanostructured TiO ₂ electrodes from the photogenerated reduced form of a new Ru($\langle scp \rangle ii \langle /scp \rangle$) polypyridine compound: the "anti-biomimetic" mechanism at work. <i>Dalton Transactions</i> , 2016, 45, 14109-14123.	1.6	19
61	Fluorinated Zn ^{II} Porphyrins for Dye-Sensitized Aqueous Photoelectrosynthetic Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 32895-32908.	4.0	19
62	Electron Transfer Mediators for Photoelectrochemical Cells Based on Cu(I) Metal Complexes. <i>International Journal of Photoenergy</i> , 2007, 2007, 1-10.	1.4	18
63	Strong π -delocalization and substitution effect on electronic properties of dithienylpyrrole-containing bipyridine ligands and corresponding ruthenium complexes. <i>Dalton Transactions</i> , 2012, 41, 4833.	1.6	18
64	Charge Transfer Dynamics in \hat{I}^2 - and <i>Meso</i> -Substituted Dithienylethylene Porphyrins. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18385-18400.	1.5	17
65	A Series of Iron(II) \hat{I} NHC Sensitizers with Remarkable Power Conversion Efficiency in Photoelectrochemical Cells**. <i>Chemistry - A European Journal</i> , 2021, 27, 16260-16269.	1.7	16
66	Electrochromic devices based on wide band-gap nanocrystalline semiconductors functionalized with mononuclear charge transfer compounds. <i>Displays</i> , 2006, 27, 19-23.	2.0	14
67	Anchimeric Assistance by Platinum(II) in the Epimerizations of [PtX(CHXSiMe ₃)(R,R-chiraphos)]. <i>Organometallics</i> , 1996, 15, 5591-5597.	1.1	13
68	Redox properties of photoexcited (nBu ₄ N) ₃ PW ₁₂ O ₄₀ Fe(II) porphyrins composite systems. <i>Journal of Molecular Catalysis A</i> , 1996, 114, 141-150.	4.8	13
69	Photoelectrochemical Properties of SnO ₂ Photoanodes Sensitized by Cationic Perylene-Di-Imide Aggregates for Aqueous HBr Splitting. <i>Journal of Physical Chemistry C</i> , 2020, 124, 1317-1329.	1.5	13
70	Electropolymerization of Molecular Assemblies. <i>Inorganic Chemistry</i> , 1997, 36, 762-763.	1.9	12
71	Sensitization of n-Type TiO ₂ Electrode by a Novel Isoquinoline Ruthenium(II) Polypyridyl Complex. <i>Journal of the Brazilian Chemical Society</i> , 1998, 9, 13-15.	0.6	12
72	Electrochromic properties of mixed valence binuclear ruthenium complexes adsorbed on nanocrystalline SnO ₂ films. <i>Inorganica Chimica Acta</i> , 2007, 360, 1131-1137.	1.2	12

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73	A viable surface passivation approach to improve efficiency in cobalt based dye sensitized solar cells. <i>Polyhedron</i> , 2014, 82, 173-180.	1.0	12
74	Resonance raman investigation of mixed-valence dinuclear and trinuclear complexes of Ru, Os and Re. <i>Inorganica Chimica Acta</i> , 1998, 275-276, 380-384.	1.2	11
75	Sedimentation field flow fractionation and optical absorption spectroscopy for a quantitative size characterization of silver nanoparticles. <i>Journal of Chromatography A</i> , 2016, 1471, 178-185.	1.8	11
76	Improvement of the electron collection efficiency in porous hematite using a thin iron oxide underlayer: towards efficient all-iron based photoelectrodes. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 29661-29670.	1.3	10
77	Hydrogen Production with Nanostructured and Sensitized Metal Oxides. <i>Topics in Current Chemistry</i> , 2011, 303, 39-94.	4.0	9
78	Excited state electronic properties of the [(phen)(OC) ₃ ReI(NC)RuII(bpy) ₂ (CN)]PF ₆ and [(phen)(OC) ₃ ReI(CN)RuII(bpy) ₂ (CN)]PF ₆ linkage isomers. <i>Journal of the Chemical Society Dalton Transactions</i> , 1999, , 3729-3734.	1.1	8
79	Sedimentation field flow fractionation and flow field flow fractionation as tools for studying the aging effects of WO ₃ colloids for photoelectrochemical uses. <i>Journal of Chromatography A</i> , 2011, 1218, 4179-4187.	1.8	8
80	Novel Ru-based sunlight harvesters bearing dithienylpyrrolo (DTP)-bipyridine ligands: Synthesis, characterization and photovoltaic properties. <i>Dyes and Pigments</i> , 2014, 101, 318-328.	2.0	7
81	Photoelectrochemical Behavior of Electrophoretically Deposited Hematite Thin Films Modified with Ti(IV). <i>Molecules</i> , 2016, 21, 942.	1.7	6
82	Intercomponent and interfacial electron transfer processes in polynuclear metal complexes anchored on transparent TiO ₂ films. <i>Journal of Chemical Sciences</i> , 1997, 109, 397-409.	0.7	4
83	Neighbouring group participation of platinum(II) in the substitution of the $\hat{\pm}$ -halogen in complexes [Pt(CHXSiMe ₃)(R,R-chiraphos)] [X=Cl or Br; chiraphos=2,3-bis(diphenylphosphino)butane] by iodide. An example of an S _N 1 substitution at sp ³ carbon with inversion of configuration. <i>Journal of the Chemical Society Dalton Transactions</i> , 1997, , 4719-4724.	1.1	2
84	Self-Assembled Multinuclear Complexes for Cobalt(II/III) Mediated Sensitized Solar Cells. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2769.	1.3	2