Hitoshi Kusama

List of Publications by Year
in descending order

59 papers	2,010 citations	279798 23 h-index	233421 45 g-index
59 all docs	59 docs citations	59 times ranked	2422 citing authors

#	Article	IF	Citations
1	Photocatalytic decomposition of water into H2 and O2 by a two-step photoexcitation reaction using a WO3 suspension catalyst and an Fe3+/Fe2+ redox system. Chemical Physics Letters, 1997, 277, 387-391.	2.6	183
2	TiO₂ Band Shift by Nitrogen-Containing Heterocycles in Dye-Sensitized Solar Cells:â€‰ a Periodic Density Functional Theory Study. Langmuir, 2008, 24, 4411-4419.	3.5	161
3	In-situ FT-IR study on CO2 hydrogenation over Cu catalysts supported on SiO2, Al2O3, and TiO2. Applied Catalysis A: General, 1997, 165, 391-409.	4.3	146
4	CO2 hydrogenation to ethanol over promoted Rh/SiO2 catalysts. Catalysis Today, 1996, 28, 261-266.	4.4	136
5	Cs-Modified WO₃ Photocatalyst Showing Efficient Solar Energy Conversion for O₂ Production and Fe (III) Ion Reduction under Visible Light. Journal of Physical Chemistry Letters, 2010, 1, 1196-1200.	4.6	122
6	Influence of alkylpyridine additives in electrolyte solution on the performance of dye-sensitized solar cell. Solar Energy Materials and Solar Cells, 2003, 80, 167-179.	6.2	110
7	Ethanol synthesis by catalytic hydrogenation of CO2 over Rhî—¸FeSiO2 catalysts. Energy, 1997, 22, 343-348.	8.8	86
8	CO2 hydrogenation reactivity and structure of Rh/SiO2 catalysts prepared from acetate, chloride and nitrate precursors. Applied Catalysis A: General, 2001, 205, 285-294.	4.3	69
9	Influence of nitrogen-containing heterocyclic additives in Iâˆ’/I3âˆ’ redox electrolytic solution on the performance of Ru-dye-sensitized nanocrystalline TiO2 solar cell. Journal of Photochemistry and Photobiology A: Chemistry, 2005, 169, 169-176.	3.9	69
10	Influence of alkylaminopyridine additives in electrolytes on dye-sensitized solar cell performance. Solar Energy Materials and Solar Cells, 2004, 81, 87-99.	6.2	68
11	Influence of benzimidazole additives in electrolytic solution on dye-sensitized solar cell performance. Journal of Photochemistry and Photobiology A: Chemistry, 2004, 162, 441-448.	3.9	66
12	DFT investigation of the TiO2 band shift by nitrogen-containing heterocycle adsorption and implications on dye-sensitized solar cell performance. Solar Energy Materials and Solar Cells, 2008, 92, 84-87.	6.2	60
13	Effect of Carbonate Ions on the Photooxidation of Water over Porous BiVO4 Film Photoelectrode under Visible Light. Chemistry Letters, 2010, 39, 17-19.	1.3	52
14	Effect of metal loading on CO2 hydrogenation reactivity over Rh/SiO2 catalysts. Applied Catalysis A: General, 2000, 197, 255-268.	4.3	48
15	Influence of pyrimidine additives in electrolytic solution on dye-sensitized solar cell performance. Journal of Photochemistry and Photobiology A: Chemistry, 2003, 160, 171-179.	3.9	44
16	Theoretical studies of 1:1 charge-transfer complexes between nitrogen-containing heterocycles and I2 molecules, and implications on the performance of dye-sensitized solar cell. Journal of Photochemistry and Photobiology A: Chemistry, 2006, 181, 268-273.	3.9	40
17	Influence of pyrazole derivatives in Iâˆ’/I3âˆ’ redox electrolyte solution on Ru(II)-dye-sensitized TiO2 solar cell performance. Solar Energy Materials and Solar Cells, 2005, 85, 333-344.	6.2	39
18	Effect of Cations on the Interactions of Ru Dye and Iodides in Dye-Sensitized Solar Cells: A Density Functional Theory Study. Journal of Physical Chemistry C, 2011, 115, 2544-2552.	3.1	33

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19	Alcohol synthesis by catalytic hydrogenation of CO2 over Rh-Co/SiO2. Applied Organometallic Chemistry, 2000, 14, 836-840.	3.5	31
20	Theoretical Study on the Interactions between Black Dye and Iodide in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2011, 115, 9267-9275.	3.1	29
21	Nitrogen-Containing Heterocyclesâ€™ Interaction with Ru Dye in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2009, 113, 20764-20771.	3.1	26
22	Characterization of Rh-Co/SiO2 catalysts for CO2 hydrogenation with TEM, XPS and FT-IR. Applied Catalysis A: General, 2001, 207, 85-94.	4.3	25
23	Theoretical Study on the Intermolecular Interactions of Black Dye Dimers and Black Dyeâ€“Deoxycholic Acid Complexes in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2012, 116, 23906-23914.	3.1	24
24	Influence of quinoline derivatives in Iâˆ'/I3âˆ' redox electrolyte solution on the performance of Ru(II)-dye-sensitized nanocrystalline TiO2 solar cell. Journal of Photochemistry and Photobiology A: Chemistry, 2004, 165, 157-163.	3.9	22
25	Significant Effects of Anion in Aqueous Reactant Solution on Photocatalytic O2 Evolution and Fe(III) Reduction. Chemistry Letters, 2010, 39, 846-847.	1.3	22
26	Combinatorial Search for Iron/Titanium-Based Ternary Oxides with a Visible-Light Response. ACS Combinatorial Science, 2010, 12, 356-362.	3.3	22
27	Influence of aminothiazole additives in Iâˆ'/I3âˆ' redox electrolyte solution on Ru(II)-dye-sensitized nanocrystalline TiO2 solar cell performance. Solar Energy Materials and Solar Cells, 2004, 82, 457-465.	6.2	21
28	Simultaneous Interactions of Ru Dye with Iodide Ions and Nitrogen-Containing Heterocycles in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 11335-11341.	3.1	21
29	Nearâ€IR Sensitization of Dyeâ€Sensitized Solar Cells Using Thiocyanateâ€Free Cyclometalated Ruthenium(II) Complexes Having a Pyridylquinoline Ligand. European Journal of Inorganic Chemistry, 2014, 2014, 1303-1311.	2.0	21
30	Density functional study of imidazoleâ€“iodine interaction and its implication in dye-sensitized solar cell. Journal of Photochemistry and Photobiology A: Chemistry, 2005, 171, 197-204.	3.9	19
31	Improved performance of Black-dye-sensitized solar cells with nanocrystalline anatase TiO2 photoelectrodes prepared from TiCl4 and ammonium carbonate. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 189, 100-104.	3.9	19
32	Photocatalytic Energy Storage over Surface-modified WO3 Using V5+/V4+ Redox Mediator. Chemistry Letters, 2012, 41, 1489-1491.	1.3	19
33	Density functional study of alkylpyridineâ€“iodine interaction and its implications in the open-circuit photovoltage of dye-sensitized solar cell. Solar Energy Materials and Solar Cells, 2006, 90, 953-966.	6.2	18
34	Effect of Catalyst Preparation on the Oxidative Coupling of Methane over SrOâ€“La2O3. Bulletin of the Chemical Society of Japan, 1994, 67, 2894-2897.	3.2	15
35	Theoretical study of quinolines-I2 intermolecular interaction and implications on dye-sensitized solar cell performance. Journal of Computational Chemistry, 2005, 26, 1372-1382.	3.3	15
36	Effect of Side Groups for Ruthenium Bipyridyl Dye on the Interactions with Iodine in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2012, 116, 1493-1502.	3.1	14

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37	A comparative computational study on the interactions of N719 and N749 dyes with iodine in dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2015, 17, 4379-4387.	2.8	14
38	Intermolecular interactions between a Ru complex and organic dyes in cosensitized solar cells: a computational study. Physical Chemistry Chemical Physics, 2014, 16, 16166.	2.8	12
39	Theoretical studies of charge-transfer complexes of I2 with pyrazoles, and implications on the dye-sensitized solar cell performance. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 187, 233-241.	3.9	11
40	Ethanol Synthesis by Catalytic Hydrogenation of Carbon Dioxide over Promoted Rhodium Catalysts. I. The Effect of Additives on Ethanol Synthesis by Catalytic Hydrogenation of Carbon Dioxide over Silica Supported Rhodium Catalysts.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 1995, 1995, 875-880.	0.1	8
41	Photo-Oxidative Coupling of Methane over TiO2-based Catalysts. Chemistry Letters, 1997, 26, 457-458.	1.3	7
42	Insights into the carbonate effect on water oxidation over metal oxide photocatalysts/photoanodes. Physical Chemistry Chemical Physics, 2022, 24, 5894-5902.	2.8	6
43	Theoretical study of cyclometalated Ru(II) dyes: Implications on the open-circuit voltage of dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 272, 80-89.	3.9	5
44	A computational study on Ru complexes with bidentate carboxylate ligands: Insights into the photocurrents of dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 314, 171-177.	3.9	5
45	NaBr-Assisted Photoelectrochemical and Photochemical Integrated Process for Isomerization of Maleate Esters to Fumarate Esters. ACS Sustainable Chemistry and Engineering, 2021, 9, 6886-6893.	6.7	5
46	Data mining assisted by theoretical calculations for improving dye-sensitized solar cell performance. Solar Energy Materials and Solar Cells, 2007, 91, 76-78.	6.2	4
47	Comparative study on the interactions of TEMPO and iodine with organic dyes in dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 330, 95-101.	3.9	4
48	Interaction between dyes and SeCNâˆ'â€"(SeCN)2 redox mediator in dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 376, 255-262.	3.9	3
49	Comparative study on the interactions of sulfide and iodine mediators with a dye in p-type dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 365, 110-118.	3.9	2
50	Interaction of tris(4-anisyl)amine mediator in dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 387, 112150.	3.9	2
51	A slight bluish-white fluorescence from E,E-2,6-bis(4-cyanostyryl)pyridine pristine crystals. RSC Advances, 2020, 10, 2727-2733.	3.6	2
52	Hydrogenation of CO2 over SiO2 Supported Rh-Co-alkalimetal Catalysts.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 2002, 2002, 107-110.	0.1	1
53	Interactions Between Thiocyanate-Free Bis-Tridentate Ru Complexes and Iodide in Dye-Sensitized Solar Cells. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 344, 134-142.	3.9	1
54	Interaction between disulfide/thiolate mediators and ruthenium complex in dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 349, 207-215.	3.9	1

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55	Interaction between dyes and iodide mediators in p-type dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 357, 60-71.	3.9	1
56	A computational study of a reduced dye and its O2 reduction: Implication on H2O2 production with dye-sensitized photocathodes. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 418, 113437.	3.9	1
57	The Effect of Precursors on CO2 Hydrogenation Reactivity over SiO2 Supported Rh-Li and Rh-Fe Catalysts.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 2001, 2001, 483-485.	0.1	0
58	Hydrogenation Reaction of CO2 by Using FSM-16 and SiO2 Supported Rh Catalysts.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 2002, 2002, 103-105.	0.1	0
59	Intermolecular interaction between anthraquinone dyes and TEMPO mediator in dye-sensitized photocatalytic systems. Journal of Photochemistry and Photobiology, 2020, 2, 100003.	2.5	0