Masanori Sakamoto

List of Publications by Year
in descending order

96 papers	2,395 citations	236925 25 h-index	254184 43 g-index
100 all docs	100 docs citations	100 times ranked	3256 citing authors

#	Article	IF	Citations
1	Light as a construction tool of metal nanoparticles: Synthesis and mechanism. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2009, 10, 33-56.	11.6	337
2	Plasmonic pâ€“n Junction for Infrared Light to Chemical Energy Conversion. Journal of the American Chemical Society, 2019, 141, 2446-2450.	13.7	110
3	Near infrared light induced plasmonic hot hole transfer at a nano-heterointerface. Nature Communications, 2018, 9, 2314.	12.8	103
4	Logic Operations of Chemically Assembled Single-Electron Transistor. ACS Nano, 2012, 6, 2798-2803.	14.6	79
5	Charge Separation in Type-II Semiconductor Heterodimers. Journal of Physical Chemistry Letters, 2013, 4, 2867-2873.	4.6	73
6	Boosting photocatalytic overall water splitting by Co doping into Mn₃O₄ nanoparticles as oxygen evolution cocatalysts. Nanoscale, 2018, 10, 10420-10427.	5.6	56
7	Photoreactivity of As-Fabricated Au Clusters at the Single-Cluster Level. Journal of the American Chemical Society, 2009, 131, 6-7.	13.7	53
8	Uniform charging energy of single-electron transistors by using size-controlled Au nanoparticles. Applied Physics Letters, 2012, 100, 033101.	3.3	52
9	Visible to near-infrared plasmon-enhanced catalytic activity of Pd hexagonal nanoplates for the Suzuki coupling reaction. Nanoscale, 2015, 7, 12435-12444.	5.6	50
10	Two-color two-laser fabrication of gold nanoparticles in a PVA film. Chemical Physics Letters, 2006, 420, 90-94.	2.6	46
11	Photochemical Reactivity of Gold Clusters: Dependence on Size and Spin Multiplicity. Langmuir, 2009, 25, 13888-13893.	3.5	46
12	Transient Absorption Spectra and Lifetimes of Benzophenone Ketyl Radicals in the Excited State. Journal of Physical Chemistry A, 2004, 108, 8147-8150.	2.5	45
13	Anomalous Photoinduced Hole Transport in Type I Core/Mesoporous-Shell Nanocrystals for Efficient Photocatalytic H₂ Evolution. ACS Nano, 2019, 13, 8356-8363.	14.6	44
14	Hard X-ray-induced optical luminescence via biomolecule-directed metal clusters. Chemical Communications, 2014, 50, 3549-3551.	4.1	43
15	Acceleration of Laser-Induced Formation of Gold Nanoparticles in a Poly(vinyl alcohol) Film. Langmuir, 2006, 22, 6361-6366.	3.5	39
16	Ultrafast dynamics and single particle spectroscopy of Auâ€“CdSe nanorods. Physical Chemistry Chemical Physics, 2013, 15, 2141.	2.8	37
17	Ligand effect on the catalytic activity of porphyrin-protected gold clusters in the electrochemical hydrogen evolution reaction. Chemical Science, 2018, 9, 261-265.	7.4	34
18	Higher Triplet Excited States of Benzophenones and Bimolecular Triplet Energy Transfer Measured by Using Nanosecond-Picosecond Two-Color/Two-Laser Flash Photolysis. Chemistry - A European Journal, 2005, 11, 6471-6477.	3.3	33

#	Article	IF	Citations
19	Clear and transparent nanocrystals for infrared-responsive carrier transfer. Nature Communications, 2019, 10, 406.	12.8	33
20	Durian-Shaped CdS@ZnSe Core@Mesoporous-Shell Nanoparticles for Enhanced and Sustainable Photocatalytic Hydrogen Evolution. Journal of Physical Chemistry Letters, 2018, 9, 2212-2217.	4.6	31
21	Intermolecular Electron Transfer from Naphthalene Derivatives in the Higher Triplet Excited States. Journal of the American Chemical Society, 2004, 126, 9709-9714.	13.7	30
22	Tin Ion Directed Morphology Evolution of Copper Sulfide Nanoparticles and Tuning of Their Plasmonic Properties via Phase Conversion. Langmuir, 2016, 32, 7582-7587.	3.5	30
23	Photochemistry for the Synthesis of Noble Metal Nanoparticles. Bulletin of the Chemical Society of Japan, 2010, 83, 1133-1154.	3.2	29
24	Benzophenones in the higher triplet excited statesThis paper is dedicated to Professor Fred Lewis on the event of his 60th birthday.. Photochemical and Photobiological Sciences, 2003, 2, 1209.	2.9	28
25	Intermolecular Electron Transfer from Excited Benzophenone Ketyl Radical. Journal of Physical Chemistry A, 2007, 111, 223-229.	2.5	27
26	Phase segregated Cu_{2âˆ’x}Se/Ni₃Se₄ bimetallic selenide nanocrystals formed through the cation exchange reaction for active water oxidation precatalysts. Chemical Science, 2020, 11, 1523-1530.	7.4	26
27	Platonic Hexahedron Composed of Six Organic Faces with an Inscribed Au Cluster. Journal of the American Chemical Society, 2012, 134, 816-819.	13.7	25
28	Carrier-Selective Blocking Layer Synergistically Improves the Plasmonic Enhancement Effect. Journal of the American Chemical Society, 2019, 141, 8402-8406.	13.7	25
29	Three-Dimensional Writing of Copper Nanoparticles in a Polymer Matrix with Two-Color Laser Beams. Chemistry of Materials, 2008, 20, 2060-2062.	6.7	24
30	Nanoparticle single-electron transistor with metal-bridged top-gate and nanogap electrodes. Applied Physics Letters, 2011, 99, .	3.3	24
31	Ideal Discrete Energy Levels in Synthesized Au Nanoparticles for Chemically Assembled Single-Electron Transistors. ACS Nano, 2012, 6, 9972-9977.	14.6	24
32	Anomalous Fluorescence from the Azaxanthone Ketyl Radical in the Excited State. Journal of the American Chemical Society, 2005, 127, 3702-3703.	13.7	23
33	Quantum coherence of multiple excitons governs absorption cross-sections of PbS/CdS core/shell nanocrystals. Nature Communications, 2018, 9, 3179.	12.8	23
34	Light-stimulated carrier dynamics of CuInS₂/CdS heterotetrapod nanocrystals. Nanoscale, 2016, 8, 9517-9520.	5.6	22
35	Stepwise Photocleavage of Two Câˆ’O Bonds of 1,8-Bis[(4-benzoylphenoxy)-methyl]naphthalene with Three-Step Excitation Using Three-Color, Three-Laser Flash Photolysis. Journal of the American Chemical Society, 2004, 126, 7432-7433.	13.7	21
36	Significant Effects of Substituents on Substituted Naphthalenes in the Higher Triplet Excited State. Journal of Physical Chemistry A, 2005, 109, 4657-4661.	2.5	21

#	Article	IF	Citations
37	Phase-segregated NiP_x@FeP_yO_z core@shell nanoparticles: ready-to-use nanocatalysts for electro- and photo-catalytic water oxidation through <i>in situ</i> activation by structural transformation and spontaneous ligand removal. Chemical Science, 2018, 9, 4830-4836.	7.4	21
38	Twoâ€Laserâ€Guided Threeâ€Dimensional Microfabrication and Processing in a Flexible Polymer Matrix. Advanced Materials, 2008, 20, 3427-3432.	21.0	20
39	Câˆ’O Bond Cleavage of Benzophenone Substituted by 4-CH2OR (R= C6H5and CH3) with Stepwise Two-Photon Excitation. Journal of Physical Chemistry A, 2005, 109, 5989-5994.	2.5	19
40	Assessment of Hot-Carrier Effects on Charge Separation in Type-II CdS/CdTe Heterostructured Nanorods. Journal of Physical Chemistry Letters, 2014, 5, 2951-2956.	4.6	19
41	Control of charging energy in chemically assembled nanoparticle single-electron transistors. Nanotechnology, 2015, 26, 045702.	2.6	19
42	Stepwise Photocleavage of Câˆ’O Bonds of Bis(substituted-methyl)naphthalenes with Stepwise Excitation by Two-Color Two-Laser and Three-Color Three-Laser Irradiations. Journal of Physical Chemistry A, 2005, 109, 3797-3802.	2.5	18
43	Photoinduced Carrier Dynamics of Nearly Stoichiometric Oleylamine-Protected Copper Indium Sulfide Nanoparticles and Nanodisks. Journal of Physical Chemistry C, 2015, 119, 11100-11105.	3.1	18
44	Harmonic Quantum Coherence of Multiple Excitons in PbS/CdS Core-Shell Nanocrystals. Physical Review Letters, 2017, 119, 247401.	7.8	18
45	Solvent Effect on the Deactivation Processes of Benzophenone Ketyl Radicals in the Excited State. Journal of Physical Chemistry A, 2006, 110, 11800-11808.	2.5	17
46	Rapid cleavage of the naphthylmethylâ€“oxygen bond in higher triplet excited states. Chemical Communications, 2003, , 2604-2605.	4.1	16
47	Transient Phenomena of Polyphenyls in the Higher Triplet Excited State. Journal of Physical Chemistry A, 2004, 108, 9361-9364.	2.5	16
48	Homolytic cleavage of Câ€“Si bond of p-trimethylsilylmethylacetophenone upon stepwise two-photon excitation using two-color two-laser flash photolysis. Chemical Physics Letters, 2005, 407, 402-406.	2.6	15
49	Strongest Ï€â€“metal orbital coupling in a porphyrin/gold cluster system. Chemical Science, 2014, 5, 2007-2010.	7.4	15
50	Dual Electron Transfer Pathways from 4,4â€˜-Dimethoxybenzophenone Ketyl Radical in the Excited State to Parent Molecule in the Ground State. Journal of Physical Chemistry A, 2005, 109, 6830-6835.	2.5	14
51	Properties of Excited Ketyl Radicals of Benzophenone Analogues Affected by the Size and Electronic Character of the Aromatic Ring Systems. Chemistry - A European Journal, 2006, 12, 1610-1617.	3.3	14
52	Chemically assembled double-dot single-electron transistor analyzed by the orthodox model considering offset charge. Journal of Applied Physics, 2015, 118, .	2.5	14
53	Rhombic Coulomb diamonds in a single-electron transistor based on an Au nanoparticle chemically anchored at both ends. Nanoscale, 2016, 8, 4720-4726.	5.6	14
54	Remarkable Reactivities of the Xanthone Ketyl Radical in the Excited State Compared with That in the Ground State. Journal of Physical Chemistry A, 2005, 109, 2452-2458.	2.5	13

#	Article	IF	Citations
55	Intramolecular Triplet Energy Transfer via Higher Triplet Excited State during Stepwise Two-Color Two-Laser Irradiation. Journal of Physical Chemistry A, 2007, 111, 9781-9788.	2.5	13
56	Characterization of thiol-functionalized oligo(phenylene-ethynylene)-protected Au nanoparticles by scanning tunneling microscopy and spectroscopy. Applied Physics Letters, 2012, 101, 083115.	3.3	13
57	Random telegraph signals by alkanethiol-protected Au nanoparticles in chemically assembled single-electron transistors. Journal of Applied Physics, 2013, 114, .	2.5	13
58	Three-input gate logic circuits on chemically assembled single-electron transistors with organic and inorganic hybrid passivation layers. Science and Technology of Advanced Materials, 2017, 18, 374-380.	6.1	13
59	Number of Surface-Attached Acceptors on a Quantum Dot Impacts Energy Transfer and Photon Upconversion Efficiencies. ACS Photonics, 2020, 7, 1876-1884.	6.6	13
60	Rate Constant of Bimolecular Triplet Energy Transfer from Chrysene in the Higher Triplet Excited States. Journal of Physical Chemistry A, 2004, 108, 7147-7150.	2.5	12
61	Quenching processes of aromatic hydrocarbons in the higher triplet excited states-energy transfer vs. electron transferElectronic supplementary information (ESI) available: The quenching of DBA(Tn) by CCl4, CHR(Tn) by NAP, the evidences of no DBA and CHR ions produced during two-color two-laser flash photolysis, and the evidence of formation of benzene/Cl complex. See http://www.rsc.org/suppdata/cp/b4/b400128a/. Physical Chemistry Chemical Physics, 2004, 6, 1735.	2.8	12
62	One-Electron Oxidation of Alcohols by the 1,3,5-Trimethoxybenzene Radical Cation in the Excited State during Two-Color Two-Laser Flash Photolysis. Journal of Physical Chemistry A, 2007, 111, 1788-1791.	2.5	12
63	Cï£¿O-Bond Cleavage of Esters with a Naphthyl Group in the Higher Triplet Excited State during Two-Color Two-Laser Flash Photolysis. Chemistry - A European Journal, 2007, 13, 3143-3149.	3.3	12
64	Investigation on photo-induced charge separation in CdS/CdTe nanopencils. Chemical Science, 2014, 5, 3831-3835.	7.4	12
65	Molecular floating-gate single-electron transistor. Scientific Reports, 2017, 7, 1589.	3.3	12
66	Gold Nanocluster Functionalized with Peptide Dendron Thiolates: Acceleration of the Photocatalytic Oxidation of an Amino Alcohol in a Supramolecular Reaction Field. ACS Catalysis, 2021, 11, 13180-13187.	11.2	12
67	Competitive Marcus-Type Electron Transfer and Energy Transfer from the Higher Triplet Excited State. Journal of Physical Chemistry A, 2004, 108, 10941-10948.	2.5	10
68	Energy Levels of Oligothiophenes in the Higher Excited Triplet States. Journal of Physical Chemistry C, 2007, 111, 1024-1028.	3.1	10
69	Radio-frequency capacitance spectroscopy of metallic nanoparticles. Scientific Reports, 2015, 5, 10858.	3.3	10
70	Near-Unity Singlet Fission on a Quantum Dot Initiated by Resonant Energy Transfer. Journal of the American Chemical Society, 2021, 143, 17388-17394.	13.7	10
71	Highly Dispersive Deposition of Pt Nanoparticles on CdS Nanostructures for Photocatalytic Hydrogen Evolution. Chemistry Letters, 2012, 41, 1325-1327.	1.3	9
72	Siliconâ€"Nitride-Passivated Bottom-Up Single-Electron Transistors. Japanese Journal of Applied Physics, 2013, 52, 110101.	1.5	9

#	Article	IF	Citations
73	Coulomb blockade and Coulomb staircase behavior observed at room temperature. Materials Research Express, 2017, 4, 024004.	1.6	9
74	Direct fluorescence lifetime measurement of excited radical cation of 1,3,5-trimethoxybenzene by nsâ€“ps two-color two-laser flash photolysis. Chemical Physics Letters, 2006, 432, 436-440.	2.6	8
75	Design of Cyclic Reaction Driven by Two-Color Two-Photon Excitation. Journal of Physical Chemistry C, 2007, 111, 6917-6919.	3.1	8
76	Association Behavior of a Nitrilotriaceticâ€Acidâ€Modified Dye in a Poly(Vinyl Alcohol) Film Containing Ni(II)â€Adsorbed Gold Nanoparticles. ChemPhysChem, 2007, 8, 1701-1706.	2.1	8
77	Reversible Intramolecular Tripletâˆ'Triplet Energy Transfer in Benzophenone-N-methylphthalimide Dyad. Journal of Physical Chemistry A, 2008, 112, 1403-1407.	2.5	8
78	Memory operations in Au nanoparticle single-electron transistors with floating gate electrodes. Applied Physics Letters, 2016, 109, .	3.3	8
79	Photodecomposition Profiles of Î²-Bond Cleavage of Phenylphenacyl Derivatives in the Higher Triplet Excited States during Stepwise Two-Color Two-Laser Flash Photolysis. Journal of Physical Chemistry A, 2008, 112, 11306-11311.	2.5	7
80	Crystal structure-selective formation and carrier dynamics of type-II CdSâ€“Cu31S16 heterodimers. Journal of Materials Chemistry C, 2013, 1, 3391.	5.5	7
81	Rigid bidentate ligands focus the size of gold nanoparticles. Chemical Science, 2013, 4, 824-828.	7.4	7
82	Impact of Orbital Hybridization at Moleculeâ€“Metal Interface on Carrier Dynamics. Journal of Physical Chemistry C, 2019, 123, 25877-25882.	3.1	7
83	Electron Transfer from Oligothiophenes in the Higher Triplet Excited States. Journal of Physical Chemistry A, 2010, 114, 10789-10794.	2.5	6
84	Collective enhancement of quantum coherence in coupled quantum dot films. Physical Review B, 2021, 104, .	3.2	6
85	The Câ€“O bond dissociation of naphthoxymethyl compounds in the higher triplet excited state using two-color two-laser flash photolysis. Chemical Physics Letters, 2007, 443, 248-252.	2.6	5
86	Î±-Bond Dissociation of <i>p</i>-Phenylbenzoyl Derivatives in the Higher Triplet Excited State Studied by Two-Color Two-Laser Flash Photolysis. Journal of Physical Chemistry A, 2009, 113, 1696-1703.	2.5	5
87	Formation of Layerâ€byâ€Layer Assembled Cocatalyst Films of S^{2âˆ'}â€Stabilized Ni₃S₄ Nanoparticles for Hydrogen Evolution Reaction. ChemNanoMat, 2017, 3, 764-771.	2.8	5
88	Morphology-Dependent Coherent Acoustic Phonon Vibrations and Phonon Beat of Au Nanopolyhedrons. ACS Omega, 2021, 6, 5485-5489.	3.5	5
89	Properties and Reactivity of Xanthyl Radical in the Excited State. Journal of Physical Chemistry A, 2006, 110, 9788-9792.	2.5	4
90	Coulomb blockade behaviors in individual Au nanoparticles as observed through noncontact atomic force spectroscopy at room temperature. Nanotechnology, 2012, 23, 185704.	2.6	4

#	Article	IF	Citations
91	Photochemical fabrication of silvernanostructures at the solidâ€“liquid interface using a recyclable photosensitized reduction process. Physical Chemistry Chemical Physics, 2010, 12, 365-372.	2.8	3
92	Porphyrin Derivative-Protected Gold Cluster with a Pseudotetrahedral Shape. Journal of Physical Chemistry C, 2017, 121, 10760-10766.	3.1	3
93	Hard X-ray excited optical luminescence from protein-directed Auâˆ¼20 clusters. RSC Advances, 2020, 10, 13824-13829.	3.6	3
94	Band Engineering-Tuned Localized Surface Plasmon Resonance in Diverse-Phased Cu_{2â€“<i>x</i>}S_{<i>y</i>}Se_{1â€“<i>y</i>} Nanocrystals. Journal of Physical Chemistry C, 2022, 126, 8107-8112.	3.1	3
95	Exciton Recycling in Triplet Energy Transfer from a Defect-Rich Quantum Dot to an Organic Molecule. Journal of Physical Chemistry C, 2022, 126, 11674-11679.	3.1	1
96	Plasmon-Induced Carrier Transfer for Infrared Light Energy Conversion. , 2020, , 211-222.		0