Hironori Tsunoyama

List of Publications by Year
in descending order

82	7,653	101496 36	66879 78
papers	citations	h-index	g-index

82	82	82	6235
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Size-Specific Catalytic Activity of Polymer-Stabilized Gold Nanoclusters for Aerobic Alcohol Oxidation in Water. Journal of the American Chemical Society, 2005, 127, 9374-9375.	6.6	832
2	Effect of Electronic Structures of Au Clusters Stabilized by Poly(N-vinyl-2-pyrrolidone) on Aerobic Oxidation Catalysis. Journal of the American Chemical Society, 2009, 131, 7086-7093.	6.6	615
3	Chirality and Electronic Structure of the Thiolate-Protected Au₃₈ Nanocluster. Journal of the American Chemical Society, 2010, 132, 8210-8218.	6.6	401
4	Aerobic Oxidation of Cyclohexane Catalyzed by Size-Controlled Au Clusters on Hydroxyapatite: Size Effect in the Sub-2 nm Regime. ACS Catalysis, 2011, 1, 2-6.	5.5	383
5	Ubiquitous 8 and 29 kDa Gold:Alkanethiolate Cluster Compounds: Mass-Spectrometric Determination of Molecular Formulas and Structural Implications. Journal of the American Chemical Society, 2008, 130, 8608-8610.	6.6	377
6	Extremely High Stability of Glutathionate-Protected Au25 Clusters Against Core Etching. Small, 2007, 3, 835-839.	5.2	373
7	Enhancement in Aerobic Alcohol Oxidation Catalysis of Au₂₅ Clusters by Single Pd Atom Doping. ACS Catalysis, 2012, 2, 1519-1523.	5.5	358
8	Colloidal Gold Nanoparticles as Catalyst for Carbonâ^'Carbon Bond Formation:Â Application to Aerobic Homocoupling of Phenylboronic Acid in Water. Langmuir, 2004, 20, 11293-11296.	1.6	356
9	Efficient and selective epoxidation of styrene with TBHP catalyzed by Au25clusters on hydroxyapatite. Chemical Communications, 2010, 46, 550-552.	2.2	271
10	Electron microscopy of gold nanoparticles at atomic resolution. Science, 2014, 345, 909-912.	6.0	269
11	Synthesis and Characterization of Au₁₀₂(p-MBA)₄₄Nanoparticles. Journal of the American Chemical Society, 2011, 133, 2976-2982.	6.6	219
12	Thermosensitive Gold Nanoclusters Stabilized by Well-Defined Vinyl Ether Star Polymers:â€‰ Reusable and Durable Catalysts for Aerobic Alcohol Oxidation. Journal of the American Chemical Society, 2007, 129, 12060-12061.	6.6	207
13	Size effect on the catalysis of gold clusters dispersed in water for aerobic oxidation of alcohol. Chemical Physics Letters, 2006, 429, 528-532.	1.2	193
14	Aerobic Oxidations Catalyzed by Colloidal Nanogold. Chemistry - an Asian Journal, 2011, 6, 736-748.	1.7	166
15	Organogold Clusters Protected by Phenylacetylene. Journal of the American Chemical Society, 2011, 133, 20123-20125.	6.6	161
16	Effect of Ag-Doping on the Catalytic Activity of Polymer-Stabilized Au Clusters in Aerobic Oxidation of Alcohol. Journal of Physical Chemistry C, 2007, 111, 4885-4888.	1.5	141
17	Chromatographic Isolation of â€œMissingâ€•Au55Clusters Protected by Alkanethiolates. Journal of the American Chemical Society, 2006, 128, 6036-6037.	6.6	136
18	X-ray Magnetic Circular Dichroism of Size-Selected, Thiolated Gold Clusters. Journal of the American Chemical Society, 2006, 128, 12034-12035.	6.6	136

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19	Preparation of â¼1 nm Gold Clusters Confined within Mesoporous Silica and Microwave-Assisted Catalytic Application for Alcohol Oxidation. Journal of Physical Chemistry C, 2009, 113, 13457-13461.	1.5	136
20	Microfluidic Synthesis and Catalytic Application of PVP-Stabilized, â¼1 nm Gold Clusters. Langmuir, 2008, 24, 11327-11330.	1.6	132
21	A New Binding Motif of Sterically Demanding Thiolates on a Gold Cluster. Journal of the American Chemical Society, 2012, 134, 14295-14297.	6.6	122
22	Magic Numbers of Gold Clusters Stabilized by PVP. Journal of the American Chemical Society, 2009, 131, 18216-18217.	6.6	114
23	Oxidative homo-coupling of potassium aryltrifluoroborates catalyzed by gold nanocluster under aerobic conditions. Journal of Organometallic Chemistry, 2007, 692, 368-374.	0.8	95
24	Selective synthesis of organogold magic clusters Au54(Cî€,CPh)26. Chemical Communications, 2012, 48, 6085.	2.2	91
25	Formation of Alkanethiolate-Protected Gold Clusters with Unprecedented Core Sizes in the Thiolation of Polymer-Stabilized Gold Clusters. Journal of Physical Chemistry C, 2007, 111, 4153-4158.	1.5	84
26	Synthetic Application of PVP-stabilized Au Nanocluster Catalyst to Aerobic Oxidation of Alcohols in Aqueous Solution under Ambient Conditions. Chemistry Letters, 2007, 36, 212-213.	0.7	81
27	MALDI Mass Analysis of 11 kDa Gold Clusters Protected by Octadecanethiolate Ligands. Journal of Physical Chemistry C, 2010, 114, 16004-16009.	1.5	73
28	Lewis Acid Character of Zero-valent Gold Nanoclusters under Aerobic Conditions: Intramolecular Hydroalkoxylation of Alkenes. Chemistry Letters, 2007, 36, 646-647.	0.7	66
29	Advanced Nanocluster Ion Source Based on High-Power Impulse Magnetron Sputtering and Time-Resolved Measurements of Nanocluster Formation. Journal of Physical Chemistry A, 2013, 117, 10211-10217.	1.1	64
30	Synthesis and Characterization of Metal-Encapsulating Si₁₆ Cage Superatoms. Accounts of Chemical Research, 2018, 51, 1735-1745.	7.6	63
31	Formation of a superatom monolayer using gas-phase-synthesized Ta@Si16nanocluster ions. Nanoscale, 2014, 6, 14702-14707.	2.8	61
32	Chemical Characterization of an Alkali-Like Superatom Consisting of a Ta-Encapsulating Si₁₆ Cage. Journal of the American Chemical Society, 2015, 137, 14015-14018.	6.6	59
33	Development of Integrated Dryâ€“Wet Synthesis Method for Metal Encapsulating Silicon Cage Superatoms of M@Si₁₆ (M = Ti and Ta). Journal of Physical Chemistry C, 2017, 121, 20507-20516.	1.5	57
34	Size and Structure Dependence of Electronic States in Thiolate-Protected Gold Nanoclusters of Au₂₅(SR)₁₈, Au₃₈(SR)₂₄, and Au₁₄₄(SR)₆₀. Journal of Physical Chemistry C, 2013, 117, 3674-3679.	1.5	53
35	Aerobic Oxygenation of Benzylic Ketones Promoted by a Gold Nanocluster Catalyst. Synlett, 2009, 2009, 245-248.	1.0	40
36	High-yield synthesis of PVP-stabilized small Pt clusters by microfluidic method. Catalysis Today, 2012, 183, 101-107.	2.2	40

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37	A designer ligand field for blue-green luminescence of organoeuropium(<scp>ii</scp>) sandwich complexes with cyclononatetraenyl ligands. Chemical Communications, 2017, 53, 6557-6560.	2.2	36
38	Size Effect of Silica-supported Gold Clusters in the Microwave-assisted Oxidation of Benzyl Alcohol with H2O2. Chemistry Letters, 2010, 39, 159-161.	0.7	35
39	Development of High-flux Ion Source for Size-selected Nanocluster Ions Based on High-power Impulse Magnetron Sputtering. Chemistry Letters, 2013, 42, 857-859.	0.7	35
40	Development of Ultrafine Multichannel Microfluidic Mixer for Synthesis of Bimetallic Nanoclusters: Catalytic Application of Highly Monodisperse AuPd Nanoclusters Stabilized by Poly(N-vinylpyrrolidone). Langmuir, 2014, 30, 10539-10547.	1.6	35
41	Charge Transfer Complexation of Ta-Encapsulating Ta@Si₁₆ Superatom with C₆₀. Journal of Physical Chemistry C, 2016, 120, 15265-15271.	1.5	34
42	Size-Controlled Synthesis of Gold Clusters as Efficient Catalysts for Aerobic Oxidation. Catalysis Surveys From Asia, 2011, 15, 230-239.	1.0	31
43	Heterodimerization via the Covalent Bonding of Ta@Si₁₆ Nanoclusters and C₆₀ Molecules. Journal of Physical Chemistry C, 2015, 119, 10962-10968.	1.5	31
44	Photoionization and density functional study of clusters of alkali metal atoms solvated with acetonitrile molecules, M(CH3CN) (M=Li and Na). Chemical Physics Letters, 1999, 301, 356-364.	1.2	26
45	Platonic Hexahedron Composed of Six Organic Faces with an Inscribed Au Cluster. Journal of the American Chemical Society, 2012, 134, 816-819.	6.6	25
46	Geometric and electronic properties of Si-atom doped Al clusters: robustness of binary superatoms against charging. Physical Chemistry Chemical Physics, 2017, 19, 20401-20411.	1.3	23
47	Extended Smoluchowski Model for the Formation of Size-Selected Silver Nanoclusters Generated via Modulated Pulsed Power Magnetron Sputtering. Journal of Physical Chemistry C, 2016, 120, 5667-5672.	1.5	22
48	Size-Effect on Electrochemical Hydrogen Evolution Reaction by Single-Size Platinum Nanocluster Catalysts Immobilized on Strontium Titanate. Topics in Catalysis, 2018, 61, 126-135.	1.3	22
49	Enhanced oxygen reduction activity of platinum subnanocluster catalysts through charge redistribution. Chemical Communications, 2019, 55, 12603-12606.	2.2	22
50	Subnanometer-sized Gold Clusters with Dual Molecular Receptors: Synthesis and Assembly in One-dimensional Arrangements. Chemistry Letters, 2005, 34, 1638-1639.	0.7	21
51	Liquid-Phase Synthesis of Multidecker Organoeuropium Sandwich Complexes and Their Physical Properties. Journal of Physical Chemistry C, 2014, 118, 5896-5907.	1.5	19
52	Oxidative reactivity of alkali-like superatoms of group 5 metal-encapsulating Si16 cage nanoclusters. Communications Chemistry, 2018, 1, .	2.0	17
53	Nitric oxide oxidation of a Ta encapsulating Si cage nanocluster superatom (Ta@Si₁₆) deposited on an organic substrate; a Si cage collapse indicator. Physical Chemistry Chemical Physics, 2018, 20, 26273-26279.	1.3	16
54	Formation and Control of Ultrasharp Metal/Molecule Interfaces by Controlled Immobilization of Sizeâ€Selected Metal Nanoclusters onto Organic Molecular Films. Advanced Functional Materials, 2014, 24, 1202-1210.	7.8	14

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55	Photoionization and density functional theory study of clusters of acetone containing an alkali metal atom, M((CH3)2CO)n (M=Li, Na): intracluster electron transfer from metal to acetone in 1:1 complexes. Chemical Physics Letters, 2000, 316, 442-448.	1.2	12
56	Intracluster Anionic Oligomerization of Acrylic Ester Molecules Initiated by Electron Transfer from an Alkali Metal Atom. Journal of the American Chemical Society, 2001, 123, 683-690.	6.6	12
57	Characterization of floating-gate memory device with thiolate-protected gold and gold-palladium nanoclusters. AIP Advances, 2018, 8, .	0.6	12
58	Multiple Photofragmentation Pathways with Different Recoil Anisotropy from a Metal-Ionâ€“Ligand Complex. Physical Review Letters, 2004, 93, 193401.	2.9	11
59	Fabrication and Characterization of Floating Memory Devices Based on Thiolate-Protected Gold Nanoclusters. Journal of Physical Chemistry C, 2017, 121, 10638-10644.	1.5	11
60	Systematic Synthesis of Monolayer-Protected Gold Clusters with Well-Defined Chemical Compositions. , 2008, , 373-382.		11
61	Photodissociation spectroscopy of MgCH3I+: dissociation processes via charge transfer and/or chemical bond rupture. Chemical Physics Letters, 2003, 382, 283-290.	1.2	9
62	Physical properties of mononuclear organoeuropium sandwich complexes ligated by cyclooctatetraene and bis(trimethylsilyl)cyclooctatetraene. Chemical Physics Letters, 2014, 595-596, 144-150.	1.2	9
63	Anion Photoelectron Spectroscopy of Rubrene: Molecular Insights into Singlet Fission Energetics. Journal of Physical Chemistry C, 2017, 121, 20680-20686.	1.5	9
64	Photodissociation of Mg(CH2=CHCN)n+: Excited electronic states of n=1 and 2 and intracluster electron transfer for n=3 and 4. Journal of Chemical Physics, 2003, 118, 5456-5464.	1.2	8
65	Photoionization mass spectroscopy of clusters of alkali metal atoms with methyl vinyl ketone and acrolein: intracluster oligomerization initiated by electron transfer from a metal atom. International Journal of Mass Spectrometry, 2002, 216, 29-40.	0.7	6
66	Deposition and fabrication of alkanethiolate gold nanocluster films on TiO2(110) and the effects of plasma etching. Surface Science, 2007, 601, 5121-5126.	0.8	6
67	Highly Ordered Self-Assembled Monolayers of Carboxy- and Ester-Terminated Alkanethiols on Au(111): Infrared Absorption and Hyperthermal-Deposition Experiments with Cr(benzene)₂ Ions. Journal of Physical Chemistry C, 2017, 121, 6736-6747.	1.5	6
68	Liquid-phase catalysis by single-size palladium nanoclusters supported on strontium titanate: size-specific catalysts for Suzukiâ€“Miyaura coupling. Catalysis Science and Technology, 2018, 8, 5827-5834.	2.1	6
69	Intracluster Electron Transfer and Reactions in Alkali Metalâ^'Methacrylate Clusters. Journal of Physical Chemistry A, 2001, 105, 9649-9658.	1.1	5
70	Intracluster electron transfer from a metal atom/cluster followed by anionic oligomerization of vinyl molecules. European Physical Journal D, 2001, 16, 107-110.	0.6	5
71	Thermal and photochemical reactivity of oxygen atoms on gold nanocluster surfaces. Surface Science, 2007, 601, 5226-5231.	0.8	5
72	Size-dependent structures of NanInâ^'1+ cluster ions with a methanol adsorbate: A combined study by photodissociation spectroscopy and density-functional theory calculation. Journal of Chemical Physics, 2005, 123, 161101.	1.2	4

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73	Vibrational Spectra of Thiolate-Protected Gold Nanocluster with Infrared Reflection Absorption Spectroscopy: Size- and Temperature-Dependent Ordering Behavior of Organic Monolayer. Journal of Physical Chemistry C, 2020, 124, 363-371.	1.5	4
74	The stability of binary Al12X nanoclusters (Xâ€‰â€‰=â€‰â€‰Sc and Ti): superatom or Wadeâ€™s polyhedron. Journal of Physics Condensed Matter, 2018, 30, 494004.	0.7	3
75	Intracluster cyclization reaction producing a benzene derivative: photoionization mass spectrometric study of alkali metalâ€“methyl propiolate clusters. International Journal of Mass Spectrometry, 2004, 232, 41-50.	0.7	2
76	Photoelectron spectroscopy and density functional theory calculation of Nan(CS2)â^' cluster negative ions for n=1 and 2. Chemical Physics Letters, 2004, 389, 241-246.	1.2	2
77	Photoionization Efficiency Curve Measurements of Alkali Metal Atomâ^'Methyl Propiolate Clusters:Â Observation of Intracluster Cyclotrimerization Products. Journal of Physical Chemistry A, 2004, 108, 5944-5949.	1.1	2
78	Investigation of Lanthanide Sandwich Nanoclusters Encapsulated with a Cyclo-Olefin Polymer as a Gas Barrier. Applied Physics Express, 2012, 5, 035202.	1.1	2
79	Formation of Highly Ordered Semiconducting Anthracene Monolayer Rigidly Connected to Insulating Alkanethiolate Thin Film. Journal of Physical Chemistry C, 2018, 122, 26080-26087.	1.5	2
80	Electron distribution and intracluster reaction in [Nan(CS2)2]- negative ion clusters. European Physical Journal D, 2005, 34, 89-92.	0.6	0
81	ADSORPTION REACTION OF POLAR ORGANIC MOLECULES ON ${m Si}^+_n$ CLUSTER IONS. International Journal of Modern Physics B, 2005, 19, 2502-2507.	1.0	0
82	Fabrication Method for Nanocluster Superatoms with High-Power Impulse Magnetron Sputtering. Journal of the Vacuum Society of Japan, 2017, 60, 352-361.	0.3	0