

# Hironori Tsunoyama

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

82

papers

6,870

citations

36

h-index

82

g-index

82

ext. papers

7,331

ext. citations

6.6

avg, IF

5.78

L-index

#	Paper	IF	Citations
82	Vibrational Spectra of Thiolate-Protected Gold Nanocluster with Infrared Reflection Absorption Spectroscopy: Size- and Temperature-Dependent Ordering Behavior of Organic Monolayer. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 363-371	3.8	3
81	Enhanced oxygen reduction activity of platinum subnanocluster catalysts through charge redistribution. <i>Chemical Communications</i> , <b>2019</b> , 55, 12603-12606	5.8	10
80	Size-Effect on Electrochemical Hydrogen Evolution Reaction by Single-Size Platinum Nanocluster Catalysts Immobilized on Strontium Titanate. <i>Topics in Catalysis</i> , <b>2018</b> , 61, 126-135	2.3	17
79	Synthesis and Characterization of Metal-Encapsulating Si Cage Superatoms. <i>Accounts of Chemical Research</i> , <b>2018</b> , 51, 1735-1745	24.3	43
78	Characterization of floating-gate memory device with thiolate-protected gold and gold-palladium nanoclusters. <i>AIP Advances</i> , <b>2018</b> , 8, 065002	1.5	10
77	Liquid-phase catalysis by single-size palladium nanoclusters supported on strontium titanate: size-specific catalysts for Suzuki-Miyaura coupling. <i>Catalysis Science and Technology</i> , <b>2018</b> , 8, 5827-5834	5.5	5
76	Nitric oxide oxidation of a Ta encapsulating Si cage nanocluster superatom (Ta@Si) deposited on an organic substrate; a Si cage collapse indicator. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 26273-26279	3.6	10
75	Formation of Highly Ordered Semiconducting Anthracene Monolayer Rigidly Connected to Insulating Alkanethiolate Thin Film. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 26080-26087	3.8	2
74	The stability of binary AlX nanoclusters (X = Sc and Ti): superatom or Wade polyhedron. <i>Journal of Physics Condensed Matter</i> , <b>2018</b> , 30, 494004	1.8	3
73	Oxidative reactivity of alkali-like superatoms of group 5 metal-encapsulating Si <sub>16</sub> cage nanoclusters. <i>Communications Chemistry</i> , <b>2018</b> , 1,	6.3	12
72	A designer ligand field for blue-green luminescence of organoeuropium(ii) sandwich complexes with cyclononatetraenyl ligands. <i>Chemical Communications</i> , <b>2017</b> , 53, 6557-6560	5.8	20
71	Highly Ordered Self-Assembled Monolayers of Carboxy- and Ester-Terminated Alkanethiols on Au(111): Infrared Absorption and Hyperthermal-Deposition Experiments with Cr(benzene) <sub>2</sub> Ions. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 6736-6747	3.8	5
70	Development of Integrated Dry/Wet Synthesis Method for Metal Encapsulating Silicon Cage Superatoms of [email protected] <sub>16</sub> (M = Ti and Ta). <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 20507-20516	3.8	43
69	Anion Photoelectron Spectroscopy of Rubrene: Molecular Insights into Singlet Fission Energetics. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 20680-20686	3.8	7
68	Geometric and electronic properties of Si-atom doped Al clusters: robustness of binary superatoms against charging. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 20401-20411	3.6	17
67	Fabrication and Characterization of Floating Memory Devices Based on Thiolate-Protected Gold Nanoclusters. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 10638-10644	3.8	10
66	Fabrication Method for Nanocluster Superatoms with High-Power Impulse Magnetron Sputtering. <i>Journal of the Vacuum Society of Japan</i> , <b>2017</b> , 60, 352-361		

65	Extended Smoluchowski Model for the Formation of Size-Selected Silver Nanoclusters Generated via Modulated Pulsed Power Magnetron Sputtering. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 5667-5672	3.8	19
64	Charge Transfer Complexation of Ta-Encapsulating Ta@Si16 Superatom with C60. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 15265-15271	3.8	26
63	Chemical characterization of an alkali-like superatom consisting of a Ta-encapsulating Si16 cage. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 14015-8	16.4	48
62	Heterodimerization via the Covalent Bonding of [email protected]16 Nanoclusters and C60 Molecules. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 10962-10968	3.8	26
61	Nanoparticle imaging. Electron microscopy of gold nanoparticles at atomic resolution. <i>Science</i> , <b>2014</b> , 345, 909-12	33.3	234
60	Liquid-Phase Synthesis of Multidecker Organoeuropium Sandwich Complexes and Their Physical Properties. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 5896-5907	3.8	14
59	Development of ultrafine multichannel microfluidic mixer for synthesis of bimetallic nanoclusters: catalytic application of highly monodisperse AuPd nanoclusters stabilized by poly(N-vinylpyrrolidone). <i>Langmuir</i> , <b>2014</b> , 30, 10539-47	4	33
58	Physical properties of mononuclear organoeuropium sandwich complexes ligated by cyclooctatetraene and bis(trimethylsilyl)cyclooctatetraene. <i>Chemical Physics Letters</i> , <b>2014</b> , 595-596, 144-150	2.5	6
57	Formation and Control of Ultrasharp Metal/Molecule Interfaces by Controlled Immobilization of Size-Selected Metal Nanoclusters onto Organic Molecular Films. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 1202-1210	15.6	12
56	Formation of a superatom monolayer using gas-phase-synthesized Ta@Si16 nanocluster ions. <i>Nanoscale</i> , <b>2014</b> , 6, 14702-7	7.7	47
55	Advanced nanocluster ion source based on high-power impulse magnetron sputtering and time-resolved measurements of nanocluster formation. <i>Journal of Physical Chemistry A</i> , <b>2013</b> , 117, 10211-7	2.8	53
54	Size and Structure Dependence of Electronic States in Thiolate-Protected Gold Nanoclusters of Au25(SR)18, Au38(SR)24, and Au144(SR)60. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 3674-3679	3.8	50
53	Development of High-flux Ion Source for Size-selected Nanocluster Ions Based on High-power Impulse Magnetron Sputtering. <i>Chemistry Letters</i> , <b>2013</b> , 42, 857-859	1.7	29
52	Selective synthesis of organogold magic clusters Au54(C6Ph)26. <i>Chemical Communications</i> , <b>2012</b> , 48, 6085-7	5.8	86
51	Platonic hexahedron composed of six organic faces with an inscribed Au cluster. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 816-9	16.4	25
50	Enhancement in Aerobic Alcohol Oxidation Catalysis of Au25 Clusters by Single Pd Atom Doping. <i>ACS Catalysis</i> , <b>2012</b> , 2, 1519-1523	13.1	312
49	A new binding motif of sterically demanding thiolates on a gold cluster. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 14295-7	16.4	105
48	High-yield synthesis of PVP-stabilized small Pt clusters by microfluidic method. <i>Catalysis Today</i> , <b>2012</b> , 183, 101-107	5.3	37

47	Investigation of Lanthanide Sandwich Nanoclusters Encapsulated with a Cyclo-Olefin Polymer as a Gas Barrier. <i>Applied Physics Express</i> , <b>2012</b> , 5, 035202	2.4	2
46	Aerobic Oxidation of Cyclohexane Catalyzed by Size-Controlled Au Clusters on Hydroxyapatite: Size Effect in the Sub-2 nm Regime. <i>ACS Catalysis</i> , <b>2011</b> , 1, 2-6	13.1	338
45	Organogold clusters protected by phenylacetylene. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 20123-5	16.4	140
44	Synthesis and characterization of Au <sub>102</sub> (p-MBA) <sub>44</sub> nanoparticles. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 2976-82	16.4	192
43	Aerobic oxidations catalyzed by colloidal nanogold. <i>Chemistry - an Asian Journal</i> , <b>2011</b> , 6, 736-48	4.5	155
42	Size-Controlled Synthesis of Gold Clusters as Efficient Catalysts for Aerobic Oxidation. <i>Catalysis Surveys From Asia</i> , <b>2011</b> , 15, 230-239	2.8	29
41	Size Effect of Silica-supported Gold Clusters in the Microwave-assisted Oxidation of Benzyl Alcohol with H <sub>2</sub> O <sub>2</sub> . <i>Chemistry Letters</i> , <b>2010</b> , 39, 159-161	1.7	31
40	MALDI Mass Analysis of 11 kDa Gold Clusters Protected by Octadecanethiolate Ligands. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 16004-16009	3.8	66
39	Chirality and electronic structure of the thiolate-protected Au <sub>38</sub> nanocluster. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 8210-8	16.4	367
38	Efficient and selective epoxidation of styrene with TBHP catalyzed by Au(25) clusters on hydroxyapatite. <i>Chemical Communications</i> , <b>2010</b> , 46, 550-2	5.8	248
37	Aerobic Oxygenation of Benzylic Ketones Promoted by a Gold Nanocluster Catalyst. <i>Synlett</i> , <b>2009</b> , 2009, 245-248	2.2	37
36	Effect of electronic structures of Au clusters stabilized by poly(N-vinyl-2-pyrrolidone) on aerobic oxidation catalysis. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 7086-93	16.4	556
35	Preparation of ~1 nm Gold Clusters Confined within Mesoporous Silica and Microwave-Assisted Catalytic Application for Alcohol Oxidation. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 13457-13461	3.8	126
34	Magic numbers of gold clusters stabilized by PVP. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 18216-7	16.4	108
33	Ubiquitous 8 and 29 kDa gold:alkanethiolate cluster compounds: mass-spectrometric determination of molecular formulas and structural implications. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 8608-10	16.4	352
32	Microfluidic synthesis and catalytic application of PVP-stabilized, approximately 1 nm gold clusters. <i>Langmuir</i> , <b>2008</b> , 24, 11327-30	4	121
31	Systematic Synthesis of Monolayer-Protected Gold Clusters with Well-Defined Chemical Compositions <b>2008</b> , 373-382		10
30	Formation of Alkanethiolate-Protected Gold Clusters with Unprecedented Core Sizes in the Thiolation of Polymer-Stabilized Gold Clusters. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 4153-4158	3.8	81

29	Thermosensitive gold nanoclusters stabilized by well-defined vinyl ether star polymers: reusable and durable catalysts for aerobic alcohol oxidation. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 12060-1	16.4	192
28	Thermal and photochemical reactivity of oxygen atoms on gold nanocluster surfaces. <i>Surface Science</i> , <b>2007</b> , 601, 5226-5231	1.8	5
27	Oxidative homo-coupling of potassium aryltrifluoroborates catalyzed by gold nanocluster under aerobic conditions. <i>Journal of Organometallic Chemistry</i> , <b>2007</b> , 692, 368-374	2.3	89
26	Extremely high stability of glutathionate-protected Au <sub>25</sub> clusters against core etching. <i>Small</i> , <b>2007</b> , 3, 835-9	11	344
25	Deposition and fabrication of alkanethiolate gold nanocluster films on TiO <sub>2</sub> (110) and the effects of plasma etching. <i>Surface Science</i> , <b>2007</b> , 601, 5121-5126	1.8	6
24	Synthetic Application of PVP-stabilized Au Nanocluster Catalyst to Aerobic Oxidation of Alcohols in Aqueous Solution under Ambient Conditions. <i>Chemistry Letters</i> , <b>2007</b> , 36, 212-213	1.7	73
23	Lewis Acid Character of Zero-valent Gold Nanoclusters under Aerobic Conditions: Intramolecular Hydroalkoxylation of Alkenes. <i>Chemistry Letters</i> , <b>2007</b> , 36, 646-647	1.7	58
22	Effect of Ag-Doping on the Catalytic Activity of Polymer-Stabilized Au Clusters in Aerobic Oxidation of Alcohol. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 4885-4888	3.8	137
21	Chromatographic isolation of "missing" Au <sub>55</sub> clusters protected by alkanethiolates. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 6036-7	16.4	127
20	X-ray magnetic circular dichroism of size-selected, thiolated gold clusters. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 12034-5	16.4	117
19	Size effect on the catalysis of gold clusters dispersed in water for aerobic oxidation of alcohol. <i>Chemical Physics Letters</i> , <b>2006</b> , 429, 528-532	2.5	175
18	Size-dependent structures of NanI+n-1 cluster ions with a methanol adsorbate: a combined study by photodissociation spectroscopy and density-functional theory calculation. <i>Journal of Chemical Physics</i> , <b>2005</b> , 123, 161101	3.9	4
17	Size-specific catalytic activity of polymer-stabilized gold nanoclusters for aerobic alcohol oxidation in water. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 9374-5	16.4	764
16	Subnanometer-sized Gold Clusters with Dual Molecular Receptors: Synthesis and Assembly in One-dimensional Arrangements. <i>Chemistry Letters</i> , <b>2005</b> , 34, 1638-1639	1.7	19
15	Electron distribution and intracluster reaction in [Nan(CS <sub>2</sub> ) <sub>2</sub> ] <sup>-</sup> negative ion clusters. <i>European Physical Journal D</i> , <b>2005</b> , 34, 89-92	1.3	
14	ADSORPTION REACTION OF POLAR ORGANIC MOLECULES ON $\{rm Si\}^{+}_n$ CLUSTER IONS. <i>International Journal of Modern Physics B</i> , <b>2005</b> , 19, 2502-2507	1.1	
13	Multiple photofragmentation pathways with different recoil anisotropy from a metal-ion-ligand complex. <i>Physical Review Letters</i> , <b>2004</b> , 93, 193401	7.4	10
12	Intracluster cyclization reaction producing a benzene derivative: photoionization mass spectrometric study of alkali metal <sup>+</sup> methyl propiolate clusters. <i>International Journal of Mass Spectrometry</i> , <b>2004</b> , 232, 41-50	1.9	1

11	Photoelectron spectroscopy and density functional theory calculation of $\text{Na}(\text{CS}_2)_n$ cluster negative ions for $n=1$ and 2. <i>Chemical Physics Letters</i> , <b>2004</b> , 389, 241-246	2.5	2
10	Photoionization Efficiency Curve Measurements of Alkali Metal Atom-Methyl Propiolate Clusters: Observation of Intracluster Cyclotrimerization Products. <i>Journal of Physical Chemistry A</i> , <b>2004</b> , 108, 5944-5949	2.8	2
9	Colloidal gold nanoparticles as catalyst for carbon-carbon bond formation: application to aerobic homocoupling of phenylboronic acid in water. <i>Langmuir</i> , <b>2004</b> , 20, 11293-6	4	328
8	Photodissociation spectroscopy of $\text{MgCH}_3^+$ : dissociation processes via charge transfer and/or chemical bond rupture. <i>Chemical Physics Letters</i> , <b>2003</b> , 382, 283-290	2.5	8
7	Photodissociation of $\text{Mg}(\text{CH}_2=\text{CHCN})_n^+$ : Excited electronic states of $n=1$ and 2 and intracluster electron transfer for $n=3$ and 4. <i>Journal of Chemical Physics</i> , <b>2003</b> , 118, 5456-5464	3.9	8
6	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. <i>International Journal of Mass Spectrometry</i> , <b>2002</b> , 216, 29-40	1.9	5
5	Intracluster electron transfer from a metal atom/cluster followed by anionic oligomerization of vinyl molecules. <i>European Physical Journal D</i> , <b>2001</b> , 16, 107-110	1.3	5
4	Intracluster anionic oligomerization of acrylic ester molecules initiated by electron transfer from an alkali metal atom. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 683-90	16.4	11
3	Intracluster Electron Transfer and Reactions in Alkali Metal-Methacrylate Clusters. <i>Journal of Physical Chemistry A</i> , <b>2001</b> , 105, 9649-9658	2.8	4
2	Photoionization and density functional theory study of clusters of acetone containing an alkali metal atom, $\text{M}((\text{CH}_3)_2\text{CO})_n$ ( $\text{M}=\text{Li}, \text{Na}$ ): intracluster electron transfer from metal to acetone in 1:1 complexes. <i>Chemical Physics Letters</i> , <b>2000</b> , 316, 442-448	2.5	12
1	Photoionization and density functional study of clusters of alkali metal atoms solvated with acetonitrile molecules, $\text{M}(\text{CH}_3\text{CN})_n$ ( $\text{M}=\text{Li}$ and $\text{Na}$ ). <i>Chemical Physics Letters</i> , <b>1999</b> , 301, 356-364	2.5	26