

Takeshi Iwasa

List of Publications by Year in descending order

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57
papers

1,790
citations

331670

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265206

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docs citations

59
times ranked

1823
citing authors

#	ARTICLE	IF	CITATIONS
1	Doping-Mediated Energy-Level Engineering of $M@Au_{12}$ Superatoms (M=Pd, Pt, Rh, Ir) for Efficient Photoluminescence and Photocatalysis. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	1
2	Doping-Mediated Energy-Level Engineering of $M@Au_{12}$ Superatoms (M=Pd, Pt, Rh, Ir) for Efficient Photoluminescence and Photocatalysis. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	44
3	Excited States of Metal-Adsorbed Dimethyl Disulfide: A TDDFT Study with Cluster Model. <i>Journal of Physical Chemistry A</i> , 2022, 126, 4191-4198.	2.5	2
4	Inside Cover: Doping-Mediated Energy-Level Engineering of $M@Au_{12}$ Superatoms (M=Pd, Pt,) <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	0
5	Innentitelbild: Doping-Mediated Energy-Level Engineering of $M@Au_{12}$ Superatoms (M=Pd, Pt,) <i>Angewandte Chemie</i> , 2022, 134, .	2.0	0
6	Effects of support materials and Ir loading on catalytic N_2O decomposition properties. <i>Catalysis Communications</i> , 2021, 149, 106208.	3.3	7
7	Theoretical method for near-field Raman spectroscopy with multipolar Hamiltonian and real-time-TDDFT: Application to on- and off-resonance tip-enhanced Raman spectroscopy. <i>Journal of Chemical Physics</i> , 2021, 154, 024104.	3.0	4
8	Photoluminescence of Doped Superatoms $M@Au_{12}$ (M = Ru, Rh, Ir) Homoleptically Capped by $(Ph)_2PCH_2P(Ph)_2$: Efficient Room-Temperature Phosphorescence from $Ru@Au_{12}$. <i>Journal of the American Chemical Society</i> , 2021, 143, 10560-10564.	13.7	57
9	Single-molecule laser nanospectroscopy with micro-electron volt energy resolution. <i>Science</i> , 2021, 373, 95-98.	12.6	47
10	$[Ag_{23}Pd_2(PPh_3)_{10}Cl_7]$: A new family of synthesizable bi-icosahedral superatomic molecules. <i>Journal of Chemical Physics</i> , 2021, 155, 024302.	3.0	15
11	A comparative study of structural, electronic, and optical properties of thiolated gold clusters with icosahedral vs face-centered cubic cores. <i>Journal of Chemical Physics</i> , 2021, 155, 094304.	3.0	4
12	Barium Oxide Encapsulating Cobalt Nanoparticles Supported on Magnesium Oxide: Active Non-Noble Metal Catalysts for Ammonia Synthesis under Mild Reaction Conditions. <i>ACS Catalysis</i> , 2021, 11, 13050-13061.	11.2	28
13	Structural Characterization of Nickel-Doped Aluminum Oxide Cations by Cryogenic Ion Trap Vibrational Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2021, 125, 9527-9535.	2.5	4
14	Photoinduced Pyramidal Inversion Behavior of Phosphanes Involved with Aggregation-Induced Emission Behavior. <i>Chemistry - A European Journal</i> , 2020, 26, 7965-7965.	3.3	0
15	Determining and Controlling Cu-Substitution Sites in Thiolate-Protected Gold-Based 25-Atom Alloy Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22304-22313.	3.1	26
16	N_2O decomposition properties of Ru catalysts supported on various oxide materials and SnO_2 . <i>Scientific Reports</i> , 2020, 10, 21605.	3.3	10
17	Combined computational quantum chemistry and classical electrodynamics approach for surface enhanced infrared absorption spectroscopy. <i>Journal of Chemical Physics</i> , 2020, 152, 164103.	3.0	3
18	Photoinduced Pyramidal Inversion Behavior of Phosphanes Involved with Aggregation-Induced Emission Behavior. <i>Chemistry - A European Journal</i> , 2020, 26, 8028-8034.	3.3	11

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19	Single-molecule resonance Raman effect in a plasmonic nanocavity. <i>Nature Nanotechnology</i> , 2020, 15, 105-110.	31.5	123
20	Ammonia Combustion Properties of Copper Oxides-based Honeycomb and Granular Catalysts. <i>Journal of the Japan Petroleum Institute</i> , 2020, 63, 274-281.	0.6	3
21	Roles of silver nanoclusters in surface-enhanced Raman spectroscopy. <i>Journal of Chemical Physics</i> , 2019, 151, 094102.	3.0	15
22	Structural and Electronic Properties, Isomerization, and NO Dissociation Reactions on Au, Ag, Cu Clusters. <i>Journal of Computer Chemistry Japan</i> , 2019, 18, 64-69.	0.1	2
23	Low-Lying Excited States of h_2qxcH and $\text{Zn}^{\text{II}}\text{h}_2\text{qxc}$ Complex: Toward Understanding Intramolecular Proton Transfer Emission. <i>Inorganic Chemistry</i> , 2019, 58, 4686-4698.	4.0	10
24	Photoluminescence Properties of [Core+exo]-Type Au_6 Clusters: Insights into the Effect of Ligand Environments on the Excitation Dynamics. <i>Journal of Physical Chemistry C</i> , 2019, 123, 6934-6939.	3.1	14
25	Ammonia-rich combustion and ammonia combustive decomposition properties of various supported catalysts. <i>Catalysis Communications</i> , 2019, 123, 64-68.	3.3	6
26	Combined Automated Reaction Pathway Searches and Sparse Modeling Analysis for Catalytic Properties of Lowest Energy Twins of Cu_{13} . <i>Journal of Physical Chemistry A</i> , 2019, 123, 210-217.	2.5	18
27	First Principles Calculations Toward Understanding SERS of 2,2'-Bipyridyl Adsorbed on Au, Ag, and Au-Ag Nanoalloy. <i>Journal of Computational Chemistry</i> , 2019, 40, 925-932.	3.3	19
28	Time-Dependent Density Functional Theory Study on Higher Low-Lying Excited States of $\text{Au}_{25}(\text{SR})_{18}$. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4097-4104.	3.1	17
29	Twist of C-C Bond Plays a Crucial Role in the Quenching of AIE-Active Tetraphenylethene Derivatives in Solution. <i>Journal of Physical Chemistry C</i> , 2018, 122, 245-251.	3.1	81
30	Supported binary CuO_x -Pt catalysts with high activity and thermal stability for the combustion of NH_3 as a carbon-free energy source. <i>RSC Advances</i> , 2018, 8, 41491-41498.	3.6	7
31	Spiral Eu^{III} coordination polymers with circularly polarized luminescence. <i>Chemical Communications</i> , 2018, 54, 10695-10697.	4.1	47
32	Insights into geometries, stabilities, electronic structures, reactivity descriptors, and magnetic properties of bimetallic Ni_mCu_n ($m = 1, 2$; $n = 3-13$) clusters: Comparison with pure copper clusters. <i>Journal of Computational Chemistry</i> , 2018, 39, 1878-1889.	3.0	10
33	A designer ligand field for blue-green luminescence of organoeuropium(Eu^{II}) sandwich complexes with cyclononatetraenyl ligands. <i>Chemical Communications</i> , 2017, 53, 6557-6560.	4.1	36
34	Luminescent Mechanochromic 9-Anthryl Gold(I) Isocyanide Complex with an Emission Maximum at 900 nm after Mechanical Stimulation. <i>Journal of the American Chemical Society</i> , 2017, 139, 6514-6517.	13.7	139
35	Development of Integrated Dry-Wet Synthesis Method for Metal Encapsulating Silicon Cage Superatoms of M@Si_{16} ($M = \text{Ti}$ and Ta). <i>Journal of Physical Chemistry C</i> , 2017, 121, 20507-20516.	3.1	57
36	Optical readout of hydrogen storage in films of Au and Pd. <i>Optics Express</i> , 2017, 25, 24081.	3.4	24

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37	Generalized theoretical method for the interaction between arbitrary nonuniform electric field and molecular vibrations: Toward near-field infrared spectroscopy and microscopy. <i>Journal of Chemical Physics</i> , 2016, 144, 124116.	3.0	8
38	Multiple-decker and ring sandwich formation of manganese benzene organometallic cluster anions: Mn_nBz_n ($n = 5$ and 18). <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 26049-26056.	2.8	6
39	Heterodimerization via the Covalent Bonding of Ta@Si ₁₆ Nanoclusters and C ₆₀ Molecules. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10962-10968.	3.1	31
40	Formation of a superatom monolayer using gas-phase-synthesized Ta@Si ₁₆ nanocluster ions. <i>Nanoscale</i> , 2014, 6, 14702-14707.	5.6	61
41	Experimental and theoretical studies of the structural and electronic properties of vanadium benzene sandwich clusters and their anions: V_nBznO ($n = 5$) and V_nBzn ($n = 5$). <i>Journal of Chemical Physics</i> , 2014, 141, 214304.	3.0	4
42	Liquid-Phase Synthesis of Multidecker Organoeuropium Sandwich Complexes and Their Physical Properties. <i>Journal of Physical Chemistry C</i> , 2014, 118, 5896-5907.	3.1	19
43	Physical properties of mononuclear organoeuropium sandwich complexes ligated by cyclooctatetraene and bis(trimethylsilyl)cyclooctatetraene. <i>Chemical Physics Letters</i> , 2014, 595-596, 144-150.	2.6	9
44	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> , 2014, 24, 1202-1210.	14.9	14
45	Geometric, Electronic, and Optical Properties of a Boron-Doped Aluminum Cluster of $B_{16}Al_n$. <i>Chemical Physics Letters</i> , 2013, 582, 100-104.	2.6	16
46	Geometric, Electronic, and Optical Properties of Monomer and Assembly of Endohedral Aluminum Superatomic Clusters. <i>Journal of Physical Chemistry C</i> , 2013, 117, 21551-21557.	3.1	16
47	Electronic and Optical Properties of Vertex-Sharing Homo- and Hetero-Bicosahedral Gold Clusters. <i>Journal of Physical Chemistry C</i> , 2013, 117, 24586-24591.	3.1	19
48	Experimental and theoretical studies on the electronic properties of vanadium-benzene sandwich cluster anions, V_nBz_n ($n = 1-5$). <i>Journal of Chemical Physics</i> , 2012, 137, 224305.	3.0	21
49	Geometric, Electronic, and Optical Properties of a Superatomic Heterodimer and Trimer: Sc@Si ₁₆ and V@Si ₁₆ and Sc@Si ₁₆ Ti@Si ₁₆ V@Si ₁₆ . <i>Journal of Physical Chemistry C</i> , 2012, 116, 14071-14077.	3.1	62
50	Theoretical Investigation of a Titanium Aniline Complex with and without an Alkyl Chain. <i>Journal of Physical Chemistry C</i> , 2011, 115, 16574-16582.	3.1	5
51	Near-field-induced optical force on a metal particle and C ₆₀ : Real-time and real-space electron dynamics simulation. <i>Physical Review A</i> , 2010, 82, .	2.5	3
52	Isolation, structure, and stability of a dodecanethiolate-protected Pd ₁ Au ₂₄ cluster. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 6219.	2.8	297
53	Nonuniform light-matter interaction theory for near-field-induced electron dynamics. <i>Physical Review A</i> , 2009, 80, .	2.5	29
54	Oligomeric Gold Clusters with Vertex-Sharing Bi- and Tricosahedral Structures. <i>Journal of Physical Chemistry C</i> , 2007, 111, 14279-14282.	3.1	110

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55	Theoretical Investigation of Optimized Structures of Thiolated Gold Cluster [Au ₂₅ (SCH ₃) ₁₈] ⁺ . Journal of Physical Chemistry C, 2007, 111, 45-49.	3.1	101
56	Thiolate-Induced Structural Reconstruction of Gold Clusters Probed by ¹⁹⁷ Au Mössbauer Spectroscopy. Journal of the American Chemical Society, 2007, 129, 7230-7231.	13.7	34
57	Gold-thiolate core-in-cage cluster Au ₂₅ (SCH ₃) ₁₈ shows localized spins in charged states. Chemical Physics Letters, 2007, 441, 268-272.	2.6	34