Toshiharu Teranishi

List of Publications by Year
in descending order

97 papers	4,238 citations	109321 35 h-index	118850 62 g-index
103 all docs	103 docs citations	103 times ranked	5882 citing authors

#	Article	IF	Citations
1	Indium Tin Oxide Nanoparticles with Compositionally Tunable Surface Plasmon Resonance Frequencies in the Near-IR Region. Journal of the American Chemical Society, 2009, 131, 17736-17737.	13.7	508
2	Photocatalytic Overall Water Splitting Promoted by Two Different Cocatalysts for Hydrogen and Oxygen Evolution under Visible Light. Angewandte Chemie - International Edition, 2010, 49, 4096-4099.	13.8	356
3	Preparation of Coreâ€“Shellâ€Structured Nanoparticles (with a Nobleâ€Metal or Metal Oxide Core and a) Tj ETQq1 1 0.784314 rgBT /O European Journal, 2010, 16, 7750-7759.	3.3	156
4	Dynamics of Charged Excitons and Biexcitons in CsPbBr₃ Perovskite Nanocrystals Revealed by Femtosecond Transient-Absorption and Single-Dot Luminescence Spectroscopy. Journal of Physical Chemistry Letters, 2017, 8, 1413-1418.	4.6	149
5	Plasmonic pâ€“n Junction for Infrared Light to Chemical Energy Conversion. Journal of the American Chemical Society, 2019, 141, 2446-2450.	13.7	110
6	Highly dispersed noble-metal/chromia (core/shell) nanoparticles as efficient hydrogen evolution promoters for photocatalytic overall water splitting under visible light. Nanoscale, 2009, 1, 106.	5.6	105
7	Spontaneous Formation of Wurzite-CdS/Zinc Blende-CdTe Heterodimers through a Partial Anion Exchange Reaction. Journal of the American Chemical Society, 2011, 133, 17598-17601.	13.7	105
8	Near infrared light induced plasmonic hot hole transfer at a nano-heterointerface. Nature Communications, 2018, 9, 2314.	12.8	103
9	Formation of pseudomorphic nanocages from Cu ₂ O nanocrystals through anion exchange reactions. Science, 2016, 351, 1306-1310.	12.6	101
10	Polyol Synthesis of Size-Controlled Rh Nanoparticles and Their Application to Photocatalytic Overall Water Splitting under Visible Light. Journal of Physical Chemistry C, 2013, 117, 2467-2473.	3.1	78
11	Gold(0) Porphyrins on Gold Nanoparticles. Angewandte Chemie - International Edition, 2008, 47, 307-310.	13.8	77
12	Drastic Structural Transformation of Cadmium Chalcogenide Nanoparticles Using Chloride Ions and Surfactants. Journal of the American Chemical Society, 2010, 132, 3280-3282.	13.7	77
13	Creation of Highâ€Performance Heterogeneous Photocatalysts by Controlling Ligand Desorption and Particle Size of Gold Nanocluster. Angewandte Chemie - International Edition, 2021, 60, 21340-21350.	13.8	74
14	Charge Separation in Type-II Semiconductor Heterodimers. Journal of Physical Chemistry Letters, 2013, 4, 2867-2873.	4.6	73
15	Self-Assembly of Small Gold Nanoparticles through Interligand Interaction. Journal of the American Chemical Society, 2006, 128, 13084-13094.	13.7	68
16	Impact of Postsynthetic Surface Modification on Photoluminescence Intermittency in Formamidinium Lead Bromide Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2017, 8, 6041-6047.	4.6	67
17	Hot Biexciton Effect on Optical Gain in CsPbI₃ Perovskite Nanocrystals. Journal of Physical Chemistry Letters, 2018, 9, 2222-2228.	4.6	67
18	Conversion of Anisotropically Phase-Segregated Pd/Î³-Fe₂O₃ Nanoparticles into Exchange-Coupled fct-FePd/Î±-Fe Nanocomposite Magnets. Journal of the American Chemical Society, 2008, 130, 4210-4211.	13.7	59

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19	Boosting photocatalytic overall water splitting by Co doping into Mn₃O₄ nanoparticles as oxygen evolution cocatalysts. Nanoscale, 2018, 10, 10420-10427.	5.6	56
20	Exchange Coupling Interaction in <i>L</i>1₀-FePd/Î±-Fe Nanocomposite Magnets with Large Maximum Energy Products. ACS Nano, 2011, 5, 2806-2814.	14.6	54
21	Suppression of Trion Formation in CsPbBr₃ Perovskite Nanocrystals by Postsynthetic Surface Modification. Journal of Physical Chemistry C, 2018, 122, 22188-22193.	3.1	54
22	Effect of Hydrogen and Oxygen Evolution Cocatalysts on Photocatalytic Activity of GaN:ZnO. European Journal of Inorganic Chemistry, 2014, 2014, 767-772.	2.0	52
23	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
24	Determinants of crystal structure transformation of ionic nanocrystals in cation exchange reactions. Science, 2021, 373, 332-337.	12.6	50
25	Anisotropically Phase-Segregated Pdâ€“Coâ€“Pd Sulfide Nanoparticles Formed by Fusing Two Coâ€“Pd Sulfide Nanoparticles. Angewandte Chemie - International Edition, 2007, 46, 1713-1715.	13.8	49
26	Largeâ€Scale Synthesis of Highâ€Quality Metal Sulfide Semiconductor Quantum Dots with Tunable Surfaceâ€Plasmon Resonance Frequencies. Chemistry - A European Journal, 2012, 18, 9230-9238.	3.3	49
27	Coreâ€“Shell CsPbBr₃@CdS Quantum Dots with Enhanced Stability and Photoluminescence Quantum Yields for Optoelectronic Devices. ACS Applied Nano Materials, 2020, 3, 7563-7571.	5.0	45
28	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
29	Hard X-ray-induced optical luminescence via biomolecule-directed metal clusters. Chemical Communications, 2014, 50, 3549-3551.	4.1	43
30	Transformations of Ionic Nanocrystals via Full and Partial Ion Exchange Reactions. Accounts of Chemical Research, 2021, 54, 765-775.	15.6	43
31	Cation Distribution in Monodispersed MFe₂O₄ (M = Mn, Fe, Co, Ni, and Zn) Nanoparticles Investigated by X-ray Absorption Fine Structure Spectroscopy: Implications for Magnetic Data Storage, Catalysts, Sensors, and Ferrofluids. ACS Applied Nano Materials, 2020, 3, 8389-8402.	5.0	42
32	Quantized Auger recombination of biexcitons in CdSe nanorods studied by time-resolved photoluminescence and transient-absorption spectroscopy. Physical Review B, 2011, 83, .	3.2	41
33	Controlled localized surface plasmon resonance wavelength for conductive nanoparticles over the ultraviolet to near-infrared region. Journal of Materials Chemistry, 2011, 21, 10238.	6.7	40
34	Luminescence Fine Structures in Single Lead Halide Perovskite Nanocrystals: Size Dependence of the Excitonâ€“Phonon Coupling. Nano Letters, 2021, 21, 7206-7212.	9.1	39
35	Ultrafast dynamics and single particle spectroscopy of Auâ€“CdSe nanorods. Physical Chemistry Chemical Physics, 2013, 15, 2141.	2.8	37
36	Effect of End Group Position on the Formation of a Single Porphyrin Molecular Junction. Journal of Physical Chemistry C, 2009, 113, 9014-9017.	3.1	35

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37	Seed-mediated synthesis of metal sulfide patchy nanoparticles. Nanoscale, 2009, 1, 225.	5.6	35
38	Observation of positive and negative trions in organic-inorganic hybrid perovskite nanocrystals. Physical Review Materials, 2018, 2, .	2.4	35
39	Bimetallic Synergy in Ultrafine Cocatalyst Alloy Nanoparticles for Efficient Photocatalytic Water Splitting. Advanced Functional Materials, 2022, 32, .	14.9	35
40	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
41	Homoepitaxial Size Control and Largeâ€Scale Synthesis of Highly Monodisperse Amineâ€Protected Palladium Nanoparticles. Small, 2011, 7, 469-473.	10.0	33
42	Clear and transparent nanocrystals for infrared-responsive carrier transfer. Nature Communications, 2019, 10, 406.	12.8	33
43	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
44	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
45	Control over Ligand-Exchange Positions of Thiolate-Protected Gold Nanoclusters Using Steric Repulsion of Protecting Ligands. Journal of the American Chemical Society, 2022, 144, 12310-12320.	13.7	30
46	Electricâ€Field Enhancement Inducing Nearâ€Infrared Twoâ€Photon Absorption in an Indiumâ€“Tin Oxide Nanoparticle Film. Angewandte Chemie - International Edition, 2012, 51, 2640-2642.	13.8	29
47	Effect of A-Site Cation on Photoluminescence Spectra of Single Lead Bromide Perovskite Nanocrystals. Nano Letters, 2020, 20, 4022-4028.	9.1	29
48	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
49	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
50	Carrier-Selective Blocking Layer Synergistically Improves the Plasmonic Enhancement Effect. Journal of the American Chemical Society, 2019, 141, 8402-8406.	13.7	25
51	Ideal Discrete Energy Levels in Synthesized Au Nanoparticles for Chemically Assembled Single-Electron Transistors. ACS Nano, 2012, 6, 9972-9977.	14.6	24
52	Coulomb-Enhanced Radiative Recombination of Biexcitons in Single Giant-Shell CdSe/CdS Core/Shell Nanocrystals. Journal of Physical Chemistry Letters, 2017, 8, 1961-1966.	4.6	24
53	Quantum coherence of multiple excitons governs absorption cross-sections of PbS/CdS core/shell nanocrystals. Nature Communications, 2018, 9, 3179.	12.8	23
54	Light-stimulated carrier dynamics of CuInS₂/CdS heterotetrapod nanocrystals. Nanoscale, 2016, 8, 9517-9520.	5.6	22

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55	Reduction of Optical Gain Threshold in CsPbI₃ Nanocrystals Achieved by Generation of Asymmetric Hot-Biexcitons. Nano Letters, 2020, 20, 3905-3910.	9.1	22
56	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
57	Electroconductive Ï€-Junction Au Nanoparticles. Bulletin of the Chemical Society of Japan, 2012, 85, 957-961.	3.2	20
58	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
59	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
60	Harmonic Quantum Coherence of Multiple Excitons in PbS/CdS Core-Shell Nanocrystals. Physical Review Letters, 2017, 119, 247401.	7.8	18
61	Ligand-Stabilized CoO and NiO Nanoparticles for Spintronic Devices with Antiferromagnetic Insulators. ACS Applied Nano Materials, 2020, 3, 2745-2755.	5.0	18
62	Strong spin-orbit coupling inducing Autler-Townes effect in lead halide perovskite nanocrystals. Nature Communications, 2021, 12, 3026.	12.8	17
63	Size-controlled quantum dots reveal the impact of intraband transitions on high-order harmonic generation in solids. Nature Physics, 2022, 18, 874-878.	16.7	17
64	Strongest Ï€â€"metal orbital coupling in a porphyrin/gold cluster system. Chemical Science, 2014, 5, 2007-2010.	7.4	15
65	Bridging electrocatalyst and cocatalyst studies for solar hydrogen production <i>via</i> water splitting. Chemical Science, 2022, 13, 2824-2840.	7.4	15
66	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
67	Investigation on photo-induced charge separation in CdS/CdTe nanopencils. Chemical Science, 2014, 5, 3831-3835.	7.4	12
68	Self-activated Rhâ€"Zr mixed oxide as a nonhazardous cocatalyst for photocatalytic hydrogen evolution. Chemical Science, 2020, 11, 6862-6867.	7.4	12
69	Creation of Highâ€Performance Heterogeneous Photocatalysts by Controlling Ligand Desorption and Particle Size of Gold Nanocluster. Angewandte Chemie, 2021, 133, 21510-21520.	2.0	12
70	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
71	<i>In Situ</i> Control of Crystallinity of 3D Colloidal Crystals by Tuning the Growth Kinetics of Nanoparticle Building Blocks. Journal of the American Chemical Society, 2022, 144, 5871-5877.	13.7	12
72	Synthesis of Stably Water-Soluble Gold Nanoparticles Protected by Porphyrin-Thiol Derivative. E-Journal of Surface Science and Nanotechnology, 2005, 3, 30-32.	0.4	11

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73	Simple Surfactant Concentrationâ€Dependent Shape Control of Polyhedral Fe₃O₄ Nanoparticles and Their Magnetic Properties. ChemPhysChem, 2015, 16, 3200-3205.	2.1	11
74	Interference effects in high-order harmonics from colloidal perovskite nanocrystals excited by an elliptically polarized laser. Physical Review Materials, 2021, 5, .	2.4	11
75	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
76	Formation of strong <i>L</i>1₀-FePd/Î±-Fe nanocomposite magnets by visualizing efficient exchange coupling. Nanoscale Advances, 2019, 1, 2598-2605.	4.6	9
77	Numerical and experimental investigations of dependence of photoacoustic signals from gold nanoparticles on the optical properties. Optical Review, 2018, 25, 365-374.	2.0	8
78	Ionization and Neutralization Dynamics of CsPbBr₃ Perovskite Nanocrystals Revealed by Double-Pump Transient Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 4731-4736.	4.6	8
79	Impact of Orbital Hybridization at Moleculeâ€“Metal Interface on Carrier Dynamics. Journal of Physical Chemistry C, 2019, 123, 25877-25882.	3.1	7
80	Nanoparticle Approach to the Formation of Sm₂Fe₁₇N₃ Hard Magnetic Particles. Chemistry Letters, 2019, 48, 1054-1057.	1.3	7
81	Bragg coherent diffraction imaging allowing simultaneous retrieval of three-dimensional shape and strain distribution for 40â€“500Ânm particles. Japanese Journal of Applied Physics, 2021, 60, SFFA07.	1.5	7
82	Inter-element miscibility driven stabilization of ordered pseudo-binary alloy. Nature Communications, 2022, 13, 1047.	12.8	6
83	Collective enhancement of quantum coherence in coupled quantum dot films. Physical Review B, 2021, 104, .	3.2	6
84	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
85	Morphology-Dependent Coherent Acoustic Phonon Vibrations and Phonon Beat of Au Nanopolyhedrons. ACS Omega, 2021, 6, 5485-5489.	3.5	5
86	Synthesis of mesoscopic particles of multi-component rare earth permanent magnet compounds. Science and Technology of Advanced Materials, 2021, 22, 37-54.	6.1	5
87	Porphyrin Derivative-Protected Gold Cluster with a Pseudotetrahedral Shape. Journal of Physical Chemistry C, 2017, 121, 10760-10766.	3.1	3
88	Hard X-ray excited optical luminescence from protein-directed Auâˆ¼20 clusters. RSC Advances, 2020, 10, 13824-13829.	3.6	3
89	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
90	Desirable Patterning of Metal Nanoparticles and Application to Nanodevices. Hyomen Kagaku, 2004, 25, 761-767.	0.0	1

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91	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
92	Hot Carrier Chemistry. ChemNanoMat, 2019, 5, 976-976.	2.8	0
93	Innentitelbild: Creation of Highâ€Performance Heterogeneous Photocatalysts by Controlling Ligand Desorption and Particle Size of Gold Nanocluster (Angew. Chem. 39/2021). Angewandte Chemie, 2021, 133, 21242-21242.	2.0	0
94	Plasmon-Induced Carrier Transfer for Infrared Light Energy Conversion. , 2020, , 211-222.		0
95	(Invited) Alchemy in Nanoplasmonics: New Class of Plasmonic Alloy Nanoparticles. ECS Meeting Abstracts, 2020, MA2020-01, 896-896.	0.0	0
96	Synthesis of Mesoscopic Particles of Multi-Component Rare Earth Permanent Magnet Compounds. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, S84-S98.	0.2	0
97	(Invited, Digital Presentation) Transformations of Ionic Nanocrystals Via Ion Exchange Reactions. ECS Meeting Abstracts, 2022, MA2022-01, 930-930.	0.0	0