Hiroshi Yao

List of Publications by Year
in descending order

113 papers	3,116 citations	172457 29 h-index	168389 53 g-index
113 all docs	113 docs citations	113 times ranked	2987 citing authors

#	Article	IF	Citations
1	Magic-Numbered AunClusters Protected by Glutathione Monolayers (n= 18, 21, 25, 28, 32, 39):Â Isolation and Spectroscopic Characterization. Journal of the American Chemical Society, 2004, 126, 6518-6519.	13.7	529
2	Large Optical Activity of Gold Nanocluster Enantiomers Induced by a Pair of Optically Active Penicillamines. Journal of the American Chemical Society, 2005, 127, 15536-15543.	13.7	243
3	Synthesis and Chiroptical Study ofd/l-Penicillamine-Capped Silver Nanoclusters. Chemistry of Materials, 2007, 19, 2831-2841.	6.7	118
4	Kinetic Stabilization of Growing Gold Clusters by Passivation with Thiolates. Journal of Physical Chemistry B, 2006, 110, 12218-12221.	2.6	103
5	In Situ Detection of Birefringent MesoscopicHandJAggregates of Thiacarbocyanine Dye in Solution. Langmuir, 2005, 21, 1067-1073.	3.5	95
6	Stepwise Size-Selective Extraction of Carboxylate-Modified Gold Nanoparticles from an Aqueous Suspension into Toluene with Tetraoctylammonium Cations. Chemistry of Materials, 2001, 13, 4692-4697.	6.7	92
7	Chiral Functionalization of Optically Inactive Monolayer-Protected Silver Nanoclusters by Chiral Ligand-Exchange Reactions. Langmuir, 2008, 24, 2759-2766.	3.5	77
8	Size Determination of Gold Clusters by Polyacrylamide Gel Electrophoresis in a Large Cluster Region. Journal of Physical Chemistry C, 2009, 113, 14076-14082.	3.1	75
9	Chiroptical Responses of <scp>d</scp>-/<scp>l</scp>-Penicillamine-Capped Gold Clusters under Perturbations of Temperature Change and Phase Transfer. Journal of Physical Chemistry C, 2007, 111, 14968-14976.	3.1	73
10	Spectroscopic and AFM Studies on the Structures of PseudoisocyanineJAggregates at a Mica/Water Interface. Journal of Physical Chemistry B, 1999, 103, 4452-4456.	2.6	60
11	Highly fluorescent organic nanoparticles of thiacyanine dye: A synergetic effect of intermolecular H-aggregation and restricted intramolecular rotation. RSC Advances, 2011, 1, 834.	3.6	59
12	Optically Active Gold Nanoclusters. Current Nanoscience, 2008, 4, 92-97.	1.2	56
13	Interparticle Spacing Control in the Superlattices of Carboxylic Acid-Capped Gold Nanoparticles by Hydrogen-Bonding Mediation. Langmuir, 2004, 20, 10317-10323.	3.5	54
14	On the Electronic Structures of Au₂₅(SR)₁₈ Clusters Studied by Magnetic Circular Dichroism Spectroscopy. Journal of Physical Chemistry Letters, 2012, 3, 1701-1706.	4.6	53
15	Preparation and optical properties of organic nanoparticles of porphyrin without self-aggregation. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 189, 7-14.	3.9	51
16	Asymmetric Transformation of Monolayer-Protected Gold Nanoclusters via Chiral Phase Transfer. Journal of Physical Chemistry C, 2008, 112, 16281-16285.	3.1	49
17	Chiral Monolayer-Protected Bimetallic Auâ€“Ag Nanoclusters: Alloying Effect on Their Electronic Structure and Chiroptical Activity. Journal of Physical Chemistry C, 2014, 118, 15506-15515.	3.1	49
18	Inclusion-Water-Cluster in a Three-Dimensional Superlattice of Gold Nanoparticles. Journal of the American Chemical Society, 2004, 126, 7438-7439.	13.7	47

#	ARTICLE	IF	CITATIONS
19	Anisotropic Growth of J Aggregates of Pseudoisocyanine Dye at a Mica/Solution Interface Revealed by AFM and Polarization Absorption Measurements. Journal of Physical Chemistry B, 1999, 103, 6909-6912.	2.6	44
20	Organic Styryl Dye Nanoparticles: Synthesis and Unique Spectroscopic Properties. Langmuir, 2009, 25, 1131-1137.	3.5	43
21	Phase Transfer of Gold Nanoparticles across a Water/Oil Interface by Stoichiometric Ion-Pair Formation on Particle Surfaces. Bulletin of the Chemical Society of Japan, 2000, 73, 2675-2678.	3.2	41
22	Fluorescent Gold Nanoparticle Superlattices. Advanced Materials, 2008, 20, 4719-4723.	21.0	40
23	Induced Optical Activity in Boronic-Acid-Protected Silver Nanoclusters by Complexation with Chiral Fructose. Journal of Physical Chemistry C, 2010, 114, 15909-15915.	3.1	37
24	Particle Crystals of Surface Modified Gold Nanoparticles Grown from Water. Chemistry Letters, 2001, 30, 372-373.	1.3	33
25	Fivefold Symmetry in Superlattices of Monolayer-Protected Gold Nanoparticles. Journal of Physical Chemistry B, 2006, 110, 14040-14045.	2.6	33
26	Electrolyte-Induced Mesoscopic Aggregation of Thiacarbocyanine Dye in Aqueous Solution:Â Counterion Size Specificity. Journal of Physical Chemistry B, 2007, 111, 7176-7183.	2.6	33
27	Individual and collective modes of surface magnetoplasmon in thiolate-protected silver nanoparticles studied by MCD spectroscopy. Nanoscale, 2016, 8, 11264-11274.	5.6	33
28	Morphology transformation of mesoscopic supramolecular J aggregates in solution. Physical Chemistry Chemical Physics, 2001, 3, 4560-4565.	2.8	31
29	Three-dimensional gold nanoparticle superlattices: Structures and optical absorption characteristics. Journal of Applied Physics, 2007, 101, 114314.	2.5	30
30	Chiral ligand-protected gold nanoclusters: Considering the optical activity from a viewpoint of ligand dissymmetric field. Progress in Natural Science: Materials International, 2016, 26, 428-439.	4.4	30
31	Equilibrium growth of three-dimensional gold nanoparticle superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 521-522.	2.7	29
32	Organic nanoparticles of malachite green with enhanced far-red emission: size-dependence of particle rigidity. Physical Chemistry Chemical Physics, 2015, 17, 11006-11013.	2.8	28
33	Water-Soluble Phosphine-Protected Au₁₁ Clusters: Synthesis, Electronic Structure, and Chiral Phase Transfer in a Synergistic Fashion. Langmuir, 2016, 32, 3284-3293.	3.5	27
34	Multipolar Surface Magnetoplasmon Resonances in Triangular Silver Nanoprisms studied by MCD Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 761-768.	3.1	26
35	Micrometer Size Effect on Dye Association in Single Laser-Trapped Water Droplets. The Journal of Physical Chemistry, 1996, 100, 1494-1497.	2.9	25
36	Mesoscopic string structures of thiacyanine J aggregates in solution. Chemical Communications, 2000, , 739-740.	4.1	25

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37	Electrolyte Effects on CdS Nanocrystal Formation in Chelate Polymer Particles:Â Optical and Distribution Properties. Langmuir, 1998, 14, 595-601.	3.5	24
38	Surface-InducedJAggregation of Pseudoisocyanine Dye at a Glass/Solution Interface Studied by Total-Internal-Reflection Fluorescence Spectroscopy. Journal of Physical Chemistry B, 1998, 102, 7691-7694.	2.6	24
39	Conformational study of chiral penicillamine ligand on optically active silver nanoclusters with IR and VCD spectroscopy. Chemical Physics, 2010, 368, 28-37.	1.9	24
40	Enhanced Chiroptical Activity in Glutathione-Protected Bimetallic (AuAg)₁₈ Nanoclusters with Almost Intact Coreâ€“Shell Configuration. Journal of Physical Chemistry C, 2016, 120, 1284-1292.	3.1	24
41	Mechanically inducible fluorescence colour switching in the formation of organic nanoparticles of an ESIPT molecule. Chemical Communications, 2014, 50, 2748-2750.	4.1	23
42	Organic Nanoparticles of Cyanine Dye in Aqueous Solution. Bulletin of the Chemical Society of Japan, 2007, 80, 295-302.	3.2	22
43	Selfâ€Assembling of Gold and Silver Nanoparticles at a Hydrophilic/Hydrophobic Interface: A Synthetic Aspect and Superstructure Formation. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2006, 36, 237-264.	1.8	20
44	Size dependence of magneto-optical activity in silver nanoparticles with dimensions between 10 and 60 nm studied by MCD spectroscopy. Physical Chemistry Chemical Physics, 2018, 20, 4269-4276.	2.8	20
45	Superstructures of Mesoscopic Monomolecular Sheets of Thiacyanine J Aggregates in Solution. Langmuir, 2003, 19, 8882-8887.	3.5	19
46	Self-assembly of acridine orange dye at a mica/solution interface: Formation of nanostripe supramolecular architectures. Journal of Colloid and Interface Science, 2007, 307, 272-279.	9.4	18
47	Ion-based Organic Nanoparticles: Synthesis, Characterization, and Optical Properties of Pseudoisocyanine Dye Nanoparticles. Chemistry Letters, 2005, 34, 1108-1109.	1.3	16
48	Controlled Formation of Fluorescent Organic Nanoparticles of Carbocyanine Dye via Ion-association Approach. Chemistry Letters, 2012, 41, 1119-1121.	1.3	15
49	Size-dependent spectral linewidth narrowing of H-bands in organic nanoparticles of pentamethine cyanine dye. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 271, 124-129.	3.9	15
50	Chiral monolayer-protected Auâ€“Pd bimetallic nanoclusters: Effect of palladium doping on their chiroptical responses. Journal of Colloid and Interface Science, 2014, 419, 1-8.	9.4	15
51	Collapse and Self-Reconstruction of Mesoscopic Architectures of Supramolecular J Aggregates in Solution: From Strings to Tubular Rods. Letters in Organic Chemistry, 2004, 1, 280-287.	0.5	15
52	Organic Nanoparticles of Porphyrin without Self-aggregation. Chemistry Letters, 2006, 35, 782-783.	1.3	13
53	Intense Plasmon-Induced Magneto-Optical Activity in Substoichiometric Tungsten Oxide (WO_{3â€“<i>x</i>}) Nanowires/Nanorods. Journal of Physical Chemistry C, 2020, 124, 15460-15467.	3.1	13
54	On the electronic transitions of Î±-Fe2O3 hematite nanoparticles with different size and morphology: Analysis by simultaneous deconvolution of UVâ€“vis absorption and MCD spectra. Journal of Magnetism and Magnetic Materials, 2021, 517, 167389.	2.3	13

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55	Microspectroscopic Study on Dye Association at a Single Laser-Trapped Water Droplet/Oil Interface. Langmuir, 1997, 13, 1996-2000.	3.5	12
56	Boronic Acid-Protected Gold Clusters Capable of Asymmetric Induction: Spectral Deconvolution Analysis of Their Electronic Absorption and Magnetic Circular Dichroism. Langmuir, 2012, 28, 3995-4002.	3.5	12
57	Emergence of Large Chiroptical Responses by Ligand Exchange Cross-Linking of Monolayer-Protected Gold Clusters with Chiral Dithiol. Langmuir, 2013, 29, 6444-6451.	3.5	12
58	Magnetic circular dichroism of thiolate-protected plasmonic gold nanoparticles: separating the effects of interband transitions and surface magnetoplasmon resonance. Journal of Nanophotonics, 2016, 10, 046004.	1.0	11
59	Magnetic Circular Dichroism of Substoichiometric Molybdenum Oxide (MoO_{3â€“<i>x</i>}) Nanoarchitectures with Polaronic Defects. Journal of Physical Chemistry C, 2019, 123, 18620-18628.	3.1	11
60	Effect of organic solvents on J aggregation of pseudoisocyanine dye at mica/water interfaces: Morphological transition from three-dimension to two-dimension. Journal of Colloid and Interface Science, 2008, 318, 116-123.	9.4	10
61	Water-soluble phosphine-protected Au 9 clusters: Electronic structures and nuclearity conversion via phase transfer. Chemical Physics, 2017, 493, 149-156.	1.9	10
62	Water-Soluble Mixed-Phosphine-Protected Gold Clusters: Can a Single Axially Chiral Ligand Lead to Large Chiroptical Responses?. Journal of Physical Chemistry C, 2018, 122, 1299-1308.	3.1	10
63	Mesodomain separation in amalgamated J aggregate formation of cyanine dyes at a mica/solution interface. Surface Science, 2003, 546, 97-106.	1.9	9
64	Self-Assembly of Si Nanoparticles: Emergence of Two-Dimensional Si Nanoparticle Lattices. Japanese Journal of Applied Physics, 2004, 43, L927-L929.	1.5	9
65	Prospects for Organic Dye Nanoparticles. Springer Series on Fluorescence, 2010, , 285-304.	0.8	9
66	Organic Porphyrin Nanoparticles with Induced Optical Activity: Ion-Based Synthesis from Achiral Chromophore and Chiral Counterions. Chemistry of Materials, 2011, 23, 913-922.	6.7	9
67	Chemical transformation of chiral monolayer-protected gold clusters: observation of ligand size effects on optical and chiroptical responses. Nanoscale, 2012, 4, 955.	5.6	9
68	Efficient Excitation-Energy Transfer in Ion-Based Organic Nanoparticles with Versatile Tunability of the Fluorescence Colours. ChemPhysChem, 2012, 13, 2703-2710.	2.1	9
69	Surface magnetoplasmons in silver nanoparticles: Apparent magnetic-field enhancement manifested by simultaneous deconvolution of UVâ€“vis absorption and MCD spectra. Chemical Physics Letters, 2014, 609, 93-97.	2.6	9
70	Size and morphology effects on the fluorescence properties of Ï€-conjugated poly(p-phenylene) polyelectrolyte nanoparticles synthesized via polyion association. Journal of Materials Chemistry C, 2016, 4, 2945-2953.	5.5	9
71	Chirality in Au₉ clusters protected by chiral/achiral mixed bidentate phosphine ligands: influence of the metal core and ligand array. Physical Chemistry Chemical Physics, 2019, 21, 14984-14991.	2.8	9
72	Optical Control of Fusion of Microparticles in Solution and Simultaneous Spectrophotometric Measurements. Analytical Chemistry, 1996, 68, 4304-4307.	6.5	8

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73	Dynamic morphology of mesoscopic pseudoisocyanine J aggregates on mica induced by humidity treatments. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 236, 31-37.	4.7	8
74	Large birefringence of single J aggregate nanosheets of thiacyanine dye in solution. Chemical Physics Letters, 2004, 396, 316-322.	2.6	8
75	Detection of spectral inhomogeneities of mesoscopic thiacyanine J aggregates in solution by the apparent CD spectral measurement. Chemical Physics Letters, 2006, 419, 21-27.	2.6	8
76	Magnetic circular dichroism (MCD) in silver nanocubes with different sizes. Chemical Physics Letters, 2018, 706, 607-612.	2.6	8
77	Chiralâ€“Achiral Ligand Synergy in Enhancing the Chiroptical Activity of Diphosphine-Protected Au₁₃ Clusters. Journal of Physical Chemistry C, 2020, 124, 25547-25556.	3.1	8
78	Magnetic Circular Dichroism Responses with High Sensitivity and Enhanced Spectral Resolution in Multipolar Plasmonic Modes of Silver Nanoparticles with Dimensions between 90 and 200 nm. Journal of Physical Chemistry Letters, 2021, 12, 9377-9383.	4.6	8
79	Application of magnetic circular dichroism (MCD) to morphological quality evaluation of silver nanodecahedra. Chemical Physics Letters, 2019, 732, 136637.	2.6	7
80	Large absorption reduction for mesoscopic thiacyanine J aggregates in solution. Chemical Physics Letters, 2001, 340, 211-216.	2.6	6
81	Organic Ion-Pair Charge-Transfer (IPCT) Nanoparticles: Synthesis and Photoinduced Electrochromism. Langmuir, 2017, 33, 219-227.	3.5	6
82	Construction of 2D Superlattices of Gold Nanoparticles at an Air/Water Interface Based on Hydrogen-Bonding Networks. Chemistry Letters, 2003, 32, 698-699.	1.3	5
83	Synthesis, characterization and optical properties of organic nanoparticles of piroxicam anti-inflammatory drug. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 212, 170-175.	3.9	5
84	Influence of Surface Protonationâ€“Deprotonation Stimuli on the Chiroptical Responses of (<i>R</i>)-/(<i>S</i>)-Mercaptosuccinic Acid-protected Gold Nanoclusters. Chemistry Letters, 2015, 44, 171-173.	1.3	5
85	Organic nanoparticles of an extended Ï€-conjugated styryl dye: Modulation of fluorescence peak energy and intensity in the near-infrared (NIR) region. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 330, 140-149.	3.9	5
86	Chemometric and Microscopic Analyses for the Size Growth of Monolayer-Protected Gold Nanoparticles during Their Superlattice Formation. Langmuir, 2007, 23, 13151-13157.	3.5	4
87	On the surface structure of 1,3-dithiol-protected gold nanoparticles interpreted by the size effect of IR absorption properties. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 426, 39-46.	4.7	4
88	Magnetic Circular Dichroism Study on Dual Plasmonic Au@CuS Coreâ€“Shell Nanoparticles: Effects of Shell Thickness and Uniformity. Journal of Physical Chemistry C, 2022, 126, 7933-7940.	3.1	4
89	Proof of Partial Flattening of Meso Substituents in Tetracationic Porphyrin at a Mica/Solution Interface. Chemistry Letters, 2008, 37, 594-595.	1.3	3
90	Gold nanoparticle superlattices self-assembled at a solid/liquid interface. Microelectronic Engineering, 2009, 86, 809-811.	2.4	3

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91	Organic nanoparticles based on Lewis-pair formation: observation of prototropically controlled dual fluorescence. Photochemical and Photobiological Sciences, 2018, 17, 1376-1385.	2.9	3
92	Organic nanoparticles of anion-based fluorophore 8-anilino-1-naphthalenesulfonate (ANS): Effects of ion-association and post-dilution. Journal of Molecular Structure, 2020, 1200, 127122.	3.6	3
93	Fluorescent Organic Lewis-Pair Nanoparticles: Excited-State Intramolecular Proton Transfer Molecule 2-(2â€²-Hydroxyphenyl)benzothiazole Undergoes GSIPT Reactions To Be a Solid-State Nanoemitter. Journal of Physical Chemistry B, 2021, 125, 13937-13945.	2.6	3
94	CdS Nanocrystal/Chelate Polymer Hybrid Systems: Controls of Optical and Morphological Properties by Monochromatic Photoirradiation. Polymer Journal, 1999, 31, 1133-1138.	2.7	2
95	Fluorescent Ï€-conjugated polymer nanoparticles: A new synthetic approach based on nanoagglomeration via polyion association. Journal of Materials Research, 2015, 30, 10-18.	2.6	2
96	Improving the Quality of Electrophoretically-fractionated Chiral Au₃₈(SG)₂₄ Nanoclusters through a Stepwise Phase-transfer Extraction Process: An Absorption and CD Spectroscopic Study. Chemistry Letters, 2017, 46, 104-107.	1.3	2
97	Amplified Near-IR Fluorescence in Organic Rhodamine-800 Nanoparticles under the Efficient Control of Aggregation-caused Quenching. Chemistry Letters, 2019, 48, 1339-1342.	1.3	2
98	Magnetic circular dichroism in plasmonic Agâ€“Au coreâ€“shell nanoparticles: how does the magneto-optical activity tune?. Journal of Nanophotonics, 2020, 14, 1.	1.0	2
99	Sensitive detection of small polaron transitions in cesium-doped tungsten bronze CsxWO3 nanostructures using magnetic circular dichroism spectroscopy. Journal of Nanophotonics, 2021, 15, .	1.0	2
100	Roles of Interfacial Functions in Analytical Chemistry. Functions of the solid/liquid interface in the J aggregate formation processes.. Bunseki Kagaku, 1998, 47, 937-943.	0.2	1
101	Carbon graphite surfaces modified with two-dimensional arrays of N-acetyltripeptide-protected gold nanoparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 361, 174-179.	4.7	1
102	Organic mediator-induced structural transformation in superlattices of monolayer-protected gold nanoparticles. Journal of Colloid and Interface Science, 2011, 354, 55-60.	9.4	1
103	Dominant role of iron oxides in magnetic circular dichroism of plasmonic-magnetic Au-Feâˆ’O4 heterodimer nanostructures. Journal of Magnetism and Magnetic Materials, 2020, 500, 166385.	2.3	1
104	Strong chiroptical activity in Au₂₅ clusters protected by mixed ligands of chiral phosphine and achiral thiolate. Physical Chemistry Chemical Physics, 2020, 22, 15288-15294.	2.8	1
105	Optical and magneto-optical properties of rhodium nanostructures with different morphologies: Insight into the absorption bump in the UV region. Chemical Physics Letters, 2021, 779, 138866.	2.6	1
106	Monolayer-Protected Metal Nanoclusters with Chirality: Synthesis, Size Fractionation, Optical Activity and Asymmetric Transformation. , 2016, , 191-216.		1
107	NMR evidence for energy gap opening in thiol-capped platinum nanoparticles. Physical Review B, 2022, 105, .	3.2	1
108	Unveiling the presence of metallic Co in chemically fabricated Au@CoO core-shell nanoparticles by magnetic circular dichroism (MCD) spectroscopy. Journal of Magnetism and Magnetic Materials, 2022, 560, 169591.	2.3	1

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109	Laser trapping-microspectroscopy of single microparticles.. Bunseki Kagaku, 1995, 44, 977-987.	0.2	0
110	Chiral Ligand-Protected Bimetallic Nanoclusters: How does the Metal Core Configuration Influence the Nanoclusterâ€™s Chiroptical Responses?. Materials Research Society Symposia Proceedings, 2015, 1802, 1-12.	0.1	0
111	Monolayer-Protected Metal Nanoclusters with Chirality: Synthesis, Size Fractionation, Optical Activity and Asymmetric Transformation. , 2015, , 1-22.		0
112	Mixed-diphosphine-protected chiral undecagold clusters Au11(S,S-DIOP)4(rac-/R-/S-BINAP): effect of the handedness of BINAP on their chiroptical responses. Physical Chemistry Chemical Physics, 2021, 23, 16847-16854.	2.8	0
113	Photofunctional organic nanostructures of merocyanine dye fabricated via co-ion-assisted ion association: Morphology transformation from nanospheres to nanofibrils. Chemical Physics, 2022, 562, 111630.	1.9	0