Mathew M Maye

List of Publications by Year
in descending order

91 papers	5,974 citations	94433 37 h-index	69250 77 g-index
95 all docs	95 docs citations	95 times ranked	7100 citing authors

#	Article	IF	Citations
1	DNA-guided crystallization of colloidal nanoparticles. Nature, 2008, 451, 549-552.	27.8	1,420
2	Heating-Induced Evolution of Thiolate-Encapsulated Gold Nanoparticles:Â A Strategy for Size and Shape Manipulations. Langmuir, 2000, 16, 490-497.	3.5	320
3	Switching binary states of nanoparticle superlattices and dimer clusters by DNA strands. Nature Nanotechnology, 2010, 5, 116-120.	31.5	268
4	Stepwise surface encoding for high-throughput assembly of nanoclusters. Nature Materials, 2009, 8, 388-391.	27.5	253
5	Iron oxideâ€"gold coreâ€"shell nanoparticles and thin film assembly. Journal of Materials Chemistry, 2005, 15, 1821.	6.7	211
6	Coreâˆ'Shell Gold Nanoparticle Assembly as Novel Electrocatalyst of CO Oxidation. Langmuir, 2000, 16, 7520-7523.	3.5	170
7	Goldâ€"platinum alloy nanoparticle assembly as catalyst for methanol electrooxidation. Chemical Communications, 2001, , 473-474.	4.1	167
8	Mediatorâˆ'Template Assembly of Nanoparticles. Journal of the American Chemical Society, 2005, 127, 1519-1529.	13.7	165
9	Coreâˆ'Shell Nanostructured Nanoparticle Films as Chemically Sensitive Interfaces. Analytical Chemistry, 2001, 73, 4441-4449.	6.5	163
10	Structures and Properties of Nanoparticle Thin Films Formed via a One-Step Exchangeâˆ'Cross-Linkingâˆ'Precipitation Route. Analytical Chemistry, 1999, 71, 5076-5083.	6.5	155
11	Novel Spherical Assembly of Gold Nanoparticles Mediated by a Tetradentate Thioether. Journal of the American Chemical Society, 2002, 124, 4958-4959.	13.7	129
12	Imparting Biomimetic Ion-Gating Recognition Properties to Electrodes with a Hydrogen-Bonding Structured Coreâˆ'Shell Nanoparticle Network. Analytical Chemistry, 2000, 72, 2190-2199.	6.5	114
13	Novel Interparticle Spatial Properties of Hydrogen-Bonding Mediated Nanoparticle Assembly. Chemistry of Materials, 2003, 15, 29-37.	6.7	107
14	A Simple Method for Kinetic Control of DNA-Induced Nanoparticle Assembly. Journal of the American Chemical Society, 2006, 128, 14020-14021.	13.7	106
15	Manipulating coreâ€"shell reactivities for processing nanoparticle sizes and shapes. Journal of Materials Chemistry, 2000, 10, 1895-1901.	6.7	95
16	X-ray Photoelectron Spectroscopic Study of the Activation of Molecularly-Linked Gold Nanoparticle Catalysts. Langmuir, 2003, 19, 125-131.	3.5	93
17	Using Temperature-Sensitive Smart Polymers to Regulate DNA-Mediated Nanoassembly and Encoded Nanocarrier Drug Release. ACS Nano, 2013, 7, 7011-7020.	14.6	93
18	Size-Controlled Assembly of Gold Nanoparticles Induced by a Tridentate Thioether Ligand. Journal of the American Chemical Society, 2003, 125, 9906-9907.	13.7	85

#	ARTICLE	IF	CITATIONS
19	DNAâ€Regulated Microâ€•and Nanoparticle Assembly. Small, 2007, 3, 1678-1682.	10.0	83
20	Photoluminescence enhancement in CdSe/ZnSâ€"DNA linkedâ€"Au nanoparticle heterodimers probed by single molecule spectroscopy. Chemical Communications, 2010, 46, 6111.	4.1	76
21	General Strategy for the Growth of CsPbX₃ (X = Cl, Br, I) Perovskite Nanosheets from the Assembly of Nanorods. Chemistry of Materials, 2018, 30, 3854-3860.	6.7	75
22	Electrocatalytic reduction of oxygen: Gold and gold-platinum nanoparticle catalysts prepared by two-phase protocol. Gold Bulletin, 2004, 37, 217-223.	2.7	73
23	Synthesis, processing, assembly and activation of core-shell structured gold nanoparticle catalysts. Gold Bulletin, 2003, 36, 75-82.	2.7	70
24	DNA-capped nanoparticles designed for doxorubicin drug delivery. Chemical Communications, 2011, 47, 3418.	4.1	68
25	Shell Thickness Dependent Photoinduced Hole Transfer in Hybrid Conjugated Polymer/Quantum Dot Nanocomposites: From Ensemble to Single Hybrid Level. ACS Nano, 2012, 6, 4984-4992.	14.6	64
26	Designing Quantum Rods for Optimized Energy Transfer with Firefly Luciferase Enzymes. Nano Letters, 2012, 12, 3251-3256.	9.1	63
27	A Modular Phase Transfer and Ligand Exchange Protocol for Quantum Dots. Langmuir, 2011, 27, 4371-4379.	3.5	62
28	DNA-Based Approach for Interparticle Interaction Control. Langmuir, 2007, 23, 6305-6314.	3.5	61
29	Multifunctional DNA-Gold Nanoparticles for Targeted Doxorubicin Delivery. Bioconjugate Chemistry, 2014, 25, 1261-1271.	3.6	61
30	Novel multistep BRET-FRET energy transfer using nanoconjugates of firefly proteins, quantum dots, and red fluorescent proteins. Nanoscale, 2013, 5, 5303.	5.6	60
31	Single walled carbon nanotube reactivity and cytotoxicity following extended aqueous exposure. Environmental Pollution, 2009, 157, 1140-1151.	7.5	52
32	Exciton Energy Shifts and Tunable Dopant Emission in Manganese-Doped Two-Dimensional CdS/ZnS Core/Shell Nanoplatelets. Chemistry of Materials, 2019, 31, 2516-2523.	6.7	48
33	Preparation and Characterization of Gold Nanoparticles Dispersed in Poly(2-hydroxyethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	3.5	44
34	Using Perovskite Nanoparticles as Halide Reservoirs in Catalysis and as Spectrochemical Probes of Ions in Solution. ACS Nano, 2016, 10, 5864-5872.	14.6	43
35	Direct Attachment of Oligonucleotides to Quantum Dot Interfaces. Chemistry of Materials, 2011, 23, 4975-4981.	6.7	41
36	Investigation of the Drug Binding Properties and Cytotoxicity of DNA-Capped Nanoparticles Designed as Delivery Vehicles for the Anticancer Agents Doxorubicin and Actinomycin D. Bioconjugate Chemistry, 2012, 23, 2061-2070.	3.6	40

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37	Quartz-crystal microbalance and spectrophotometric assessments of inter-core and inter-shell reactivities in nanoparticle thin film formation and growth. Journal of Materials Chemistry, 2001, 11, 1258-1264.	6.7	38
38	Thermal Aggregation Properties of Nanoparticles Modified with Temperature Sensitive Copolymers. Langmuir, 2013, 29, 15217-15223.	3.5	37
39	Size Control and Photophysical Properties of Quantum Dots Prepared via a Novel Tunable Hydrothermal Route. Journal of Physical Chemistry C, 2010, 114, 19270-19277.	3.1	35
40	Probing pH-Tuned Morphological Changes in Coreâˆ'Shell Nanoparticle Assembly Using Atomic Force Microscopy. Nano Letters, 2001, 1, 575-579.	9.1	34
41	Fe-Doped Trititanate Nanotubes:â€‰ Formation, Optical and Magnetic Properties, and Catalytic Applications. Journal of Physical Chemistry C, 2007, 111, 14339-14342.	3.1	34
42	Super-compressible DNA nanoparticle lattices. Soft Matter, 2013, 9, 10452.	2.7	29
43	Near infrared bioluminescence resonance energy transfer from firefly luciferaseâ€"quantum dot bionanoconjugates. Nanotechnology, 2014, 25, 495606.	2.6	29
44	Processing Core/Alloy/Shell Nanoparticles: Tunable Optical Properties and Evidence for Self-Limiting Alloy Growth. Journal of Physical Chemistry C, 2011, 115, 9933-9942.	3.1	28
45	Probing Resonance Energy Transfer and Inner Filter Effects in Quantum Dotâ€"Large Metal Nanoparticle Clusters using a DNA-Mediated Quench and Release Mechanism. Journal of Physical Chemistry C, 2012, 116, 22996-23003.	3.1	28
46	Core size dependent hole transfer from a photoexcited CdSe/ZnS quantum dot to a conductive polymer. Chemical Communications, 2014, 50, 5958-5960.	4.1	28
47	Understanding the Surface Properties of Halide Exchanged Cesium Lead Halide Nanoparticles. Langmuir, 2018, 34, 11139-11146.	3.5	28
48	An infrared reflectance spectroscopic study of a pH-tunable network of nanoparticles linked by hydrogen bonding. Analyst, The, 2000, 125, 17-20.	3.5	27
49	Human epithelial cell processing of carbon and gold nanoparticles. International Journal of Nanotechnology, 2008, 5, 55.	0.2	26
50	Layer-by-Layer Processing and Optical Properties of Core/Alloy Nanostructures. Journal of the American Chemical Society, 2011, 133, 5224-5227.	13.7	24
51	Controllable g5p-Protein-Directed Aggregation of ssDNAâˆ'Gold Nanoparticles. Langmuir, 2009, 25, 657-660.	3.5	23
52	Site-Selective Binding of Nanoparticles to Double-Stranded DNA <i>via</i> Peptide Nucleic Acid â€œInvasionâ€. ACS Nano, 2011, 5, 2467-2474.	14.6	22
53	0Dâ€"2D and 1Dâ€"2D Semiconductor Hybrids Composed of All Inorganic Perovskite Nanocrystals and Singleâ€Layer Graphene with Improved Light Harvesting. Particle and Particle Systems Characterization, 2018, 35, 1700310.	2.3	22
54	Chemical Analysis Using Scanning Force Microscopy. An Undergraduate Laboratory Experiment. Journal of Chemical Education, 2002, 79, 207.	2.3	21

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55	The Surface Composition of Au/Ag Core/Alloy Nanoparticles Influences the Methanol Oxidation Reaction. ACS Applied Nano Materials, 2018, 1, 5640-5645.	5.0	21
56	Understanding the Oxidation Behavior of Fe/Ni/Cr and Fe/Cr/Ni Core/Alloy Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 22035-22044.	3.1	20
57	Probing Bioluminescence Resonance Energy Transfer in Quantum Rodâ€“Luciferase Nanoconjugates. ACS Nano, 2016, 10, 1969-1977.	14.6	20
58	Ligand-mediated synthesis of chemically tailored two-dimensional all-inorganic perovskite nanoplatelets under ambient conditions. Journal of Materials Chemistry C, 2021, 9, 14226-14235.	5.5	20
59	Functionalization of quantum rods with oligonucleotides for programmable assembly with DNA origami. Nanoscale, 2015, 7, 2883-2888.	5.6	19
60	Heterostructured Au/Pdâ€“M (M = Au, Pd, Pt) nanoparticles with compartmentalized composition, morphology, and electrocatalytic activity. Nanoscale, 2015, 7, 15748-15756.	5.6	19
61	Growth Characteristics and Optical Properties of Core/Alloy Nanoparticles Fabricated via the Layer-by-Layer Hydrothermal Route. Chemistry of Materials, 2013, 25, 3105-3113.	6.7	13
62	Stepwise Assembly and Characterization of DNA Linked Two-Color Quantum Dot Clusters. Langmuir, 2015, 31, 7463-7471.	3.5	13
63	Attenuating surface plasmon resonance via core/alloy architectures. Chemical Communications, 2011, 47, 10079.	4.1	12
64	Sensing Nucleic Acids with Dimer Nanoclusters. Advanced Functional Materials, 2011, 21, 1051-1057.	14.9	11
65	An Infrared Reflection Spectroscopic Assessment of Interfacial Derivatization and Reactivity at Inter-Shell Linked Nanoparticle Films. Langmuir, 2000, 16, 9639-9644.	3.5	10
66	Probing the quenching of CdSe/ZnS qdots by Au, Au/Ag, and Au/Pd nanoparticles. Nanotechnology, 2012, 23, 435401.	2.6	10
67	Void Coalescence in Core/Alloy Nanoparticles with Stainless Interfaces. Small, 2014, 10, 271-276.	10.0	10
68	Gold-Based Nanoparticle Catalysts for Fuel Cell Reactions. , 2007, , 289-307.		9
69	Exploiting coreâ€“shell and coreâ€“alloy interfaces for asymmetric growth of nanoparticles. Chemical Communications, 2012, 48, 10449.	4.1	9
70	The transformation of Î±-Fe nanoparticles into multi-domain FeNiâ€“M₃O₄(M = Fe,) Tj ETQq0 0 0 rgBT /Overlc	5.5	9
71	Nanoparticle Interactions with Living Systems: In Vivo and In Vitro Biocompatibility. , 2009, , 1-45.		7
72	En route to patchy superlattices. Nature Nanotechnology, 2013, 8, 5-6.	31.5	5

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73	Investigating the role of polytypism in the growth of multi-shell CdSe/CdZnS quantum dots. Journal of Materials Chemistry C, 2014, 2, 4659-4666.	5.5	5
74	Keplerate cluster (Mo-132) mediated electrostatic assembly of nanoparticles. Journal of Colloid and Interface Science, 2014, 432, 144-150.	9.4	5
75	Adenovirus Knob Trimers as Tailorable Scaffolds for Nanoscale Assembly. Small, 2008, 4, 1941-1944.	10.0	3
76	Ligand Surface Density Decreases with Quantum Rod Aspect Ratio. Journal of Physical Chemistry C, 2019, 123, 23682-23690.	3.1	3
77	Characterizations of Core-Shell Nanoparticle Catalysts for Methanol Electrooxidation. Materials Research Society Symposia Proceedings, 2002, 756, 1.	0.1	2
78	Discrete Dipole Approximation Analysis of Plasmonic Core/Alloy Nanoparticles. ChemPhysChem, 2014, 15, 2582-2587.	2.1	2
79	Human Airway Epithelial Cell Responses to Single Walled Carbon Nanotube Exposure: Nanorope-Residual Body Formation. Nanoscience and Nanotechnology Letters, 2012, 4, 1110-1121.	0.4	2
80	Nanoparticle Assembly via Hydrogen-Bonding: IRS, TEM and AFM Characterizations. Materials Research Society Symposia Proceedings, 2001, 635, C4.5.1.	0.1	1
81	Fluorescence intermittency and spectral shifts of single bio-conjugated nanocrystals studied by single molecule confocal fluorescence microscopy and spectroscopy. , 2007, , .		1
82	Tailoring Quantum Dot Interfaces for Improved Biofunctionality and Energy Transfer. ACS Symposium Series, 2012, , 59-79.	0.5	1
83	Electrical and Electrochemical Properties of Nanocomposite Thin Films Formed by Exchange-Precipitation Route from Nanocrystals and Organic Cross-Linkers. Materials Research Society Symposia Proceedings, 1999, 598, 309.	0.1	0
84	Construction of Spherical Assembly of Gold Nanoparticles Using Tetra[(methylthio)methyl] silane as Ligand. Materials Research Society Symposia Proceedings, 2002, 739, 261.	0.1	0
85	Interfacial Ion Fluxes at Nanostructured Thin Films. Materials Research Society Symposia Proceedings, 2002, 752, 1.	0.1	0
86	A Thermogravimetric Study of Alakanethiolate Monolayer-Capped Gold Nanoparticle Catalysts. Materials Research Society Symposia Proceedings, 2003, 789, 45.	0.1	0
87	Greener Synthesis of Nanoparticles Using Fine Tuned Hydrothermal Routes. Materials Research Society Symposia Proceedings, 2009, 1220, 3021.	0.1	0
88	Asymmetric quantum dot growth via temperature cycling. Inorganica Chimica Acta, 2012, 380, 114-117.	2.4	0
89	Control of Photoinduced Charge Transfer in Semiconducting Quantum Dot-Based Hybrids. Lecture Notes in Nanoscale Science and Technology, 2014, , 91-111.	0.8	0
90	Perovskite Nanomaterials: 0Dâ€“2D and 1Dâ€“2D Semiconductor Hybrids Composed of All Inorganic Perovskite Nanocrystals and Singleâ€Layer Graphene with Improved Light Harvesting (Part. Part. Syst.) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.3	0

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91	Designing Quantum Rod Morphology and Surface Chemistry for Optimum Bioluminescence Resonance Energy Transfer. , 2013, , .		0