

# Nathaniel L Rosi

## 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.

116  
papers

31,710  
citations

59  
h-index

123  
g-index

123  
ext. papers

33,875  
ext. citations

12.1  
avg, IF

7.3  
L-index

#	Paper	IF	Citations
116	Peptide-based Methods for the Assembly of Plasmonic Nanostructures <b>2022</b> , 93-126		
115	Interplay between Intrinsic Thermal Stability and Expansion Properties of Functionalized UiO-67 Metal-Organic Frameworks. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 910-920	9.6	4
114	Heterogeneous Growth of UiO-66-NH on Oxidized Single-Walled Carbon Nanotubes to Form "Beads-on-a-String" Composites. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 15482-15489	9.5	3
113	Size Discrimination of Carbohydrates via Conductive Carbon Nanotube@Metal Organic Framework Composites. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 8022-8033	16.4	2
112	Breast Cancer Targeting of a Drug Delivery System through Postsynthetic Modification of Curcumin@N-bio-MOF-100 via Click Chemistry. <i>Inorganic Chemistry</i> , <b>2021</b> , 60, 11739-11744	5.1	8
111	Leveraging Peptide Sequence Modification to Promote Assembly of Chiral Helical Gold Nanoparticle Superstructures. <i>Biochemistry</i> , <b>2021</b> , 60, 1044-1049	3.2	5
110	Tuning the Lewis acidity of metal-organic frameworks for enhanced catalysis. <i>Dalton Transactions</i> , <b>2021</b> , 50, 3116-3120	4.3	3
109	The Emergence of Compositional Complexity and Anisotropy in Metal-Organic Frameworks. <i>Chemical Research in Chinese Universities</i> , <b>2021</b> , 37, 187-188	2.2	2
108	MOFs Constructed from Biomolecular Building Blocks <b>2021</b> , 291-320		1
107	Mixed Matrix Membranes from a Microporous Polymer Blend and Nanosized Metal-Organic Frameworks with Exceptional CO <sub>2</sub> /N <sub>2</sub> Separation Performance <b>2020</b> , 2, 821-828		14
106	Luminescence "Turn-On" Detection of Gossypol Using Ln-Based Metal-Organic Frameworks and Ln Salts. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 2897-2904	16.4	78
105	Construction of Chiral, Helical Nanoparticle Superstructures: Progress and Prospects. <i>Advanced Materials</i> , <b>2020</b> , 32, e1905975	24	40
104	Doping Effect on the Magnetism of Thiolate-Capped 25-Atom Alloy Nanoclusters. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 9238-9244	9.6	10
103	H <sub>2</sub> /CO separations in multicomponent metal-adeninate MOFs with multiple chemically distinct pore environments. <i>Chemical Science</i> , <b>2020</b> , 11, 12807-12815	9.4	9
102	Atom-by-Atom Evolution of the Same Ligand-Protected Au, Au <sub>2</sub> , AuCd, and Au Nanocluster Series. <i>Journal of the American Chemical Society</i> , <b>2020</b> ,	16.4	17
101	Heteroatom Tracing Reveals the 30-Atom Au-Ag Bimetallic Nanocluster as a Dimeric Structure. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 7307-7312	6.4	7
100	Modeling of Diffusion of Acetone in UiO-66. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 28469-28478	3.8	10

99	Ship-in-a-Bottle Preparation of Long Wavelength Molecular Antennae in Lanthanide Metal-Organic Frameworks for Biological Imaging. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 8776-8781	16.4	22
98	Tuning the Structure and Chiroptical Properties of Gold Nanoparticle Single Helices via Peptide Sequence Variation. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 15710-15716	16.4	18
97	Growth of ZIF-8 on molecularly ordered 2-methylimidazole/single-walled carbon nanotubes to form highly porous, electrically conductive composites. <i>Chemical Science</i> , <b>2019</b> , 10, 737-742	9.4	24
96	One Approach for Two: Toward the Creation of Near-Infrared Imaging Agents and Rapid Screening of Lanthanide(III) Ion Sensitizers Using Polystyrene Nanobeads.. <i>ACS Applied Bio Materials</i> , <b>2019</b> , 2, 1667-1675	4.1	6
95	Deliberate Introduction of Particle Anisotropy in Helical Gold Nanoparticle Superstructures. <i>Particle and Particle Systems Characterization</i> , <b>2019</b> , 36, 1800504	3.1	8
94	Design, Synthesis, and Characterization of Metal-Organic Frameworks for Enhanced Sorption of Chemical Warfare Agent Simulants. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 19748-19758	3.8	21
93	Designing Open Metal Sites in Metal-Organic Frameworks for Paraffin/Olefin Separations. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 13003-13007	16.4	47
92	Fundamental Insights into the Reactivity and Utilization of Open Metal Sites in Cu(I)-MFU-4l. <i>Organometallics</i> , <b>2019</b> , 38, 3453-3459	3.8	6
91	Au <sub>130</sub> Ag <sub>x</sub> Nanoclusters with Non-Metallicity: A Drum of Silver-Rich Sites Enclosed in a Marks-Decahedral Cage of Gold-Rich Sites. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 18974-18978	3.6	12
90	Au Ag Nanoclusters with Non-Metallicity: A Drum of Silver-Rich Sites Enclosed in a Marks-Decahedral Cage of Gold-Rich Sites. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 18798-18802	16.4	22
89	Multivariate Stratified Metal-Organic Frameworks: Diversification Using Domain Building Blocks. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 2161-2168	16.4	64
88	Programmable Topology in New Families of Heterobimetallic Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 6194-6198	16.4	58
87	Near infrared excitation and emission in rare earth MOFs encapsulation of organic dyes. <i>Chemical Science</i> , <b>2018</b> , 9, 8099-8102	9.4	36
86	Total Structure Determination of Au(S-Adm) and CdAu(S tBu) and Implications for the Structure of Au(SR). <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 10988-10994	16.4	56
85	Modulating the hierarchical fibrous assembly of Au nanoparticles with atomic precision. <i>Nature Communications</i> , <b>2018</b> , 9, 3871	17.4	48
84	A Correlated Series of Au/Ag Nanoclusters Revealing the Evolutionary Patterns of Asymmetric Ag Doping. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 14235-14243	16.4	41
83	Single-ligand exchange on an Au-Cu bimetal nanocluster and mechanism. <i>Nanoscale</i> , <b>2018</b> , 10, 12093-12099	9.9	25
82	Oxidation-Induced Transformation of Eight-Electron Gold Nanoclusters: [Au(SR)] to [Au(SR)]. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 866-870	6.4	36

81	Ternary gradient metal-organic frameworks. <i>Faraday Discussions</i> , <b>2017</b> , 201, 163-174	3.6	5
80	Polyphosphazene polymer development for mixed matrix membranes using SIFSIX-Cu-2i as performance enhancement filler particles. <i>Journal of Membrane Science</i> , <b>2017</b> , 535, 103-112	9.6	13
79	All-Atom Molecular Dynamics Simulations of Peptide Amphiphile Assemblies That Spontaneously Form Twisted and Helical Ribbon Structures. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 2170-2174	6.4	12
78	Rare Earth pcu Metal-Organic Framework Platform Based on RE(OH)(COO) Clusters: Rational Design, Directed Synthesis, and Deliberate Tuning of Excitation Wavelengths. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 9333-9340	16.4	76
77	Molecular "surgery" on a 23-gold-atom nanoparticle. <i>Science Advances</i> , <b>2017</b> , 3, e1603193	14.3	96
76	Shuttling single metal atom into and out of a metal nanoparticle. <i>Nature Communications</i> , <b>2017</b> , 8, 848	17.4	60
75	Triblock peptide-oligonucleotide chimeras (POCs): programmable biomolecules for the assembly of morphologically tunable and responsive hybrid materials. <i>Chemical Communications</i> , <b>2017</b> , 53, 12221-12224	5.8	5
74	Effect of counteraction on the water stability of an anionic metal-organic framework. <i>CrystEngComm</i> , <b>2017</b> , 19, 5417-5421	3.3	8
73	Systematic Adjustment of Pitch and Particle Dimensions within a Family of Chiral Plasmonic Gold Nanoparticle Single Helices. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 15043-15048	16.4	41
72	Ligand Exchange for Controlling the Surface Chemistry and Properties of Nanoparticle Superstructures. <i>ChemNanoMat</i> , <b>2017</b> , 3, 745-749	3.5	9
71	Reconstructing the Surface of Gold Nanoclusters by Cadmium Doping. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 17779-17782	16.4	57
70	Controlling Ag-doping in [AgAu(SCH)] nanoclusters: cryogenic optical, electronic and electrocatalytic properties. <i>Nanoscale</i> , <b>2017</b> , 9, 19183-19190	7.7	29
69	Tailoring the Structure of 58-Electron Gold Nanoclusters: AuS(S-Nap) and Its Implications. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 9994-10001	16.4	123
68	Silicon Nanoparticles with Surface Nitrogen: 90% Quantum Yield with Narrow Luminescence Bandwidth and the Ligand Structure Based Energy Law. <i>ACS Nano</i> , <b>2016</b> , 10, 8385-93	16.7	120
67	Tailoring the Electronic and Catalytic Properties of Au <sub>25</sub> Nanoclusters via Ligand Engineering. <i>ACS Nano</i> , <b>2016</b> , 10, 7998-8005	16.7	134
66	Isomerism in Au <sub>28</sub> (SR) <sub>20</sub> Nanocluster and Stable Structures. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 1482-5	16.4	202
65	Atomic Structure of Self-Assembled Monolayer of Thiolates on a Tetragonal Au <sub>92</sub> Nanocrystal. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 8710-3	16.4	124
64	Controlling the Atomic Structure of Au <sub>30</sub> Nanoclusters by a Ligand-Based Strategy. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 6694-7	16.4	139

63	Controlling the Atomic Structure of Au <sub>30</sub> Nanoclusters by a Ligand-Based Strategy. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 6806-6809	3.6	31
62	Establishing Porosity Gradients within Metal-Organic Frameworks Using Partial Postsynthetic Ligand Exchange. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 12045-8	16.4	88
61	Peptide-Directed Assembly of Single-Helical Gold Nanoparticle Superstructures Exhibiting Intense Chiroptical Activity. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 13655-13663	16.4	110
60	Structure Determination of [Au <sub>18</sub> (SR) <sub>14</sub> ]. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 3183-3187	3.6	53
59	Tri-icosahedral Gold Nanocluster [Au <sub>37</sub> (PPh <sub>3</sub> ) <sub>10</sub> (SC <sub>2</sub> H <sub>4</sub> Ph) <sub>10</sub> X <sub>2</sub> ](+): Linear Assembly of Icosahedral Building Blocks. <i>ACS Nano</i> , <b>2015</b> , 9, 8530-6	16.7	124
58	Crystal Structure of Barrel-Shaped Chiral Au <sub>130</sub> (p-MBT) <sub>50</sub> Nanocluster. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 10076-9	16.4	207
57	Orthogonal Ternary Functionalization of a Mesoporous Metal-Organic Framework via Sequential Postsynthetic Ligand Exchange. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 10508-11	16.4	77
56	Adjusting the Metrics of 1-D Helical Gold Nanoparticle Superstructures Using Multivalent Peptide Conjugates. <i>Langmuir</i> , <b>2015</b> , 31, 9492-501	4	27
55	Loading and triggered release of cargo from hollow spherical gold nanoparticle superstructures. <i>RSC Advances</i> , <b>2015</b> , 5, 76291-76295	3.7	8
54	Gold tetrahedra coil up: Kekulé-like and double helical superstructures. <i>Science Advances</i> , <b>2015</b> , 1, e15004253	16.3	184
53	Observation of Body-Centered Cubic Gold Nanocluster. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 9964-9967	3.6	30
52	Observation of Body-Centered Cubic Gold Nanocluster. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 9826-9	16.4	125
51	Fabrication of MMMs with improved gas separation properties using externally-functionalized MOF particles. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 5014-5022	13	228
50	Structure determination of [Au <sub>18</sub> (SR) <sub>14</sub> ]. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 3140-4	16.4	181
49	Hollow spherical gold nanoparticle superstructures with tunable diameters and visible to near-infrared extinction. <i>Nanoscale</i> , <b>2014</b> , 6, 12328-32	7.7	22
48	Gold-thiolate ring as a protecting motif in the Au <sub>20</sub> (SR) <sub>16</sub> nanocluster and implications. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 11922-5	16.4	244
47	Alumina-supported cobalt-β-adeninate MOF membranes for CO <sub>2</sub> /CH <sub>4</sub> separation. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 1239-1241	13	77
46	Crystal structure and electronic properties of a thiolate-protected Au <sub>24</sub> nanocluster. <i>Nanoscale</i> , <b>2014</b> , 6, 6458-62	7.7	204

45	Cyclopentanethiolato-protected Au <sub>36</sub> (SC <sub>5</sub> H <sub>9</sub> ) <sub>24</sub> nanocluster: crystal structure and implications for the steric and electronic effects of ligand. <i>Journal of Physical Chemistry A</i> , <b>2014</b> , 118, 8264-9	2.8	89
44	Peptide conjugates for directing the morphology and assembly of 1D nanoparticle superstructures. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 941-5	4.8	25
43	Tailorable plasmonic circular dichroism properties of helical nanoparticle superstructures. <i>Nano Letters</i> , <b>2013</b> , 13, 3256-61	11.5	185
42	Systematic modulation and enhancement of CO <sub>2</sub> : N <sub>2</sub> selectivity and water stability in an isorecticular series of bio-MOF-11 analogues. <i>Chemical Science</i> , <b>2013</b> , 4, 1746	9.4	153
41	Stepwise ligand exchange for the preparation of a family of mesoporous MOFs. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 11688-91	16.4	272
40	Design and preparation of a core-shell metal-organic framework for selective CO <sub>2</sub> capture. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 9984-7	16.4	220
39	Chiral structure of thiolate-protected 28-gold-atom nanocluster determined by X-ray crystallography. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 10011-3	16.4	476
38	Screening and evaluating aminated cationic functional moieties for potential CO(2) capture applications using an anionic MOF scaffold. <i>Chemical Communications</i> , <b>2013</b> , 49, 11385-7	5.8	41
37	Nonsuperatomic [Au <sub>23</sub> (SC <sub>6</sub> H <sub>11</sub> ) <sub>16</sub> ]- nanocluster featuring bipyramidal Au <sub>15</sub> kernel and trimeric Au <sub>3</sub> (SR) <sub>4</sub> motif. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 18264-7	16.4	277
36	Lanthanide near infrared imaging in living cells with Yb <sup>3+</sup> nano metal organic frameworks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 17199-204	11.5	206
35	Peptide-directed synthesis and assembly of hollow spherical CoPt nanoparticle superstructures. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 3993-5	16.4	52
34	Peptide-Directed Synthesis and Assembly of Hollow Spherical CoPt Nanoparticle Superstructures. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 4085-4087	3.6	7
33	Total structure and optical properties of a phosphine/thiolate-protected Au <sub>24</sub> nanocluster. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 20286-9	16.4	170
32	Total Structure and Electronic Properties of the Gold Nanocrystal Au <sub>36</sub> (SR) <sub>24</sub> . <i>Angewandte Chemie</i> , <b>2012</b> , 124, 13291-13295	3.6	114
31	Total structure and electronic properties of the gold nanocrystal Au <sub>36</sub> (SR) <sub>24</sub> . <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 13114-8	16.4	468
30	Metal-adeninate vertices for the construction of an exceptionally porous metal-organic framework. <i>Nature Communications</i> , <b>2012</b> , 3, 604	17.4	312
29	Strain-promoted "click" modification of a mesoporous metal-organic framework. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 18886-8	16.4	110
28	Metal-biomolecule frameworks (MBioFs). <i>Chemical Communications</i> , <b>2011</b> , 47, 7287-302	5.8	314

27	Zinc-adeninate metal-organic framework for aqueous encapsulation and sensitization of near-infrared and visible emitting lanthanide cations. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 1220-3	16.4	536
26	Size-controlled peptide-directed synthesis of hollow spherical gold nanoparticle superstructures. <i>Small</i> , <b>2011</b> , 7, 1938-42	11	37
25	Gold Superstructures: Size-Controlled Peptide-Directed Synthesis of Hollow Spherical Gold Nanoparticle Superstructures (Small 14/2011). <i>Small</i> , <b>2011</b> , 7, 1938-1938	11	3
24	Preparation of 1-D nanoparticle superstructures with tailorable thicknesses using gold-binding peptide conjugates. <i>Chemical Communications</i> , <b>2011</b> , 47, 185-7	5.8	37
23	High and selective CO <sub>2</sub> uptake in a cobalt adeninate metal-organic framework exhibiting pyrimidine- and amino-decorated pores. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 38-9	16.4	823
22	Tuning MOF CO <sub>2</sub> adsorption properties via cation exchange. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 5578-9	16.4	501
21	Preparation of unique 1-D nanoparticle superstructures and tailoring their structural features. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 6902-3	16.4	113
20	Expeditious synthesis and assembly of sub-100 nm hollow spherical gold nanoparticle superstructures. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 14033-5	16.4	81
19	Peptide-based methods for the preparation of nanostructured inorganic materials. <i>Angewandte Chemie - International Edition</i> , <b>2010</b> , 49, 1924-42	16.4	381
18	Near-infrared emitting ytterbium metal-organic frameworks with tunable excitation properties. <i>Chemical Communications</i> , <b>2009</b> , 4506-8	5.8	125
17	Cation-triggered drug release from a porous zinc-adeninate metal-organic framework. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 8376-7	16.4	868
16	Synthesis, structure, assembly, and modulation of the CO <sub>2</sub> adsorption properties of a zinc-adeninate macrocycle. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 8401-3	16.4	144
15	Near-infrared luminescent lanthanide MOF barcodes. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 18069-71	16.4	410
14	A new peptide-based method for the design and synthesis of nanoparticle superstructures: construction of highly ordered gold nanoparticle double helices. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 13555-7	16.4	311
13	Oligonucleotide loading determines cellular uptake of DNA-modified gold nanoparticles. <i>Nano Letters</i> , <b>2007</b> , 7, 3818-21	11.5	467
12	Locked nucleic acid-nanoparticle conjugates. <i>ChemBioChem</i> , <b>2007</b> , 8, 1230-2	3.8	72
11	Oligonucleotide-modified gold nanoparticles for intracellular gene regulation. <i>Science</i> , <b>2006</b> , 312, 1027-30	39.3	1682
10	Asymmetric functionalization of gold nanoparticles with oligonucleotides. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 9286-7	16.4	292

9	Rod packings and metal-organic frameworks constructed from rod-shaped secondary building units. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 1504-18	16.4	1963
8	Nanostructures in biodiagnostics. <i>Chemical Reviews</i> , <b>2005</b> , 105, 1547-62	68.1	4122
7	Sacrificial Biological Templates for the Formation of Nanostructured Metallic Microshells. <i>Angewandte Chemie</i> , <b>2005</b> , 117, 5192-5195	3.6	14
6	Optically and Chemically Encoded Nanoparticle Materials for DNA and Protein Detection. <i>MRS Bulletin</i> , <b>2005</b> , 30, 376-380	3.2	43
5	Control of nanoparticle assembly by using DNA-modified diatom templates. <i>Angewandte Chemie - International Edition</i> , <b>2004</b> , 43, 5500-3	16.4	136
4	Hydrogen storage in microporous metal-organic frameworks. <i>Science</i> , <b>2003</b> , 300, 1127-9	33.3	4026
3	Infinite secondary building units and forbidden catenation in metal-organic frameworks. <i>Angewandte Chemie - International Edition</i> , <b>2002</b> , 41, 284-7	16.4	263
2	Systematic design of pore size and functionality in isorecticular MOFs and their application in methane storage. <i>Science</i> , <b>2002</b> , 295, 469-72	33.3	6475
1	Advances in the chemistry of metal-organic frameworks. <i>CrystEngComm</i> , <b>2002</b> , 4, 401-404	3.3	239