Oleg Gang

List of Publications by Year
in descending order

101 papers	7,309 citations	71102 41 h-index	54911 84 g-index
102 all docs	102 docs citations	102 times ranked	6748 citing authors

#	Article	IF	Citations
1	Designer Nanomaterials through Programmable Assembly. Angewandte Chemie, 2022, 134, .	2.0	7
2	Designer Nanomaterials through Programmable Assembly. Angewandte Chemie - International Edition, 2022, 61, .	13.8	37
3	Cascaded Enzyme Reactions over a Three-Dimensional, Wireframe DNA Origami Scaffold. Jacs Au, 2022, 2, 357-366.	7.9	26
4	Effect of mono- and multi-valent ionic environments on the in-lattice nanoparticle-grafted single-stranded DNA. Soft Matter, 2022, 18, 526-534.	2.7	4
5	Three-dimensional visualization of nanoparticle lattices and multimaterial frameworks. Science, 2022, 376, 203-207.	12.6	27
6	Two-Stage Assembly of Nanoparticle Superlattices with Multiscale Organization. Nano Letters, 2022, 22, 3809-3817.	9.1	10
7	Compact Peptoid Molecular Brushes for Nanoparticle Stabilization. Journal of the American Chemical Society, 2022, 144, 8138-8152.	13.7	11
8	Microscale Colocalization of Cascade Enzymes Yields Activity Enhancement. ACS Nano, 2022, 16, 10383-10391.	14.6	21
9	DNA origami based superconducting nanowires. AIP Advances, 2021, 11, .	1.3	7
10	Rationally Programming Nanomaterials with DNA for Biomedical Applications. Advanced Science, 2021, 8, 2003775.	11.2	51
11	Engineered Silicon Carbide Three-Dimensional Frameworks through DNA-Prescribed Assembly. Nano Letters, 2021, 21, 1863-1870.	9.1	16
12	DNA assembles nano-objects. Physics Today, 2021, 74, 58-59.	0.3	1
13	Resilient three-dimensional ordered architectures assembled from nanoparticles by DNA. Science Advances, 2021, 7, .	10.3	45
14	Self-organization of nanoparticles and molecules in periodic Liesegang-type structures. Science Advances, 2021, 7, .	10.3	16
15	Designed and biologically active protein lattices. Nature Communications, 2021, 12, 3702.	12.8	25
16	Controlled Organization of Inorganic Materials Using Biological Molecules for Activating Therapeutic Functionalities. ACS Applied Materials & Interfaces, 2021, 13, 39030-39041.	8.0	10
17	Divalent Multilinking Bonds Control Growth and Morphology of Nanopolymers. Nano Letters, 2021, 21, 10547-10554.	9.1	15
18	Controlling the Emission Properties of Quantum Rods via Multiscale 3D Ordered Organization. Journal of Nanomaterials, 2021, 2021, 1-9.	2.7	0

#	Article	IF	Citations
19	Polarized Single-Particle Quantum Dot Emitters through Programmable Cluster Assembly. ACS Nano, 2020, 14, 1369-1378.	14.6	34
20	Impact of Electrostatic Interactions on the Self-Assembly of Charge-Neutral Block Copolyelectrolytes. Macromolecules, 2020, 53, 548-557.	4.8	14
21	DNA-assembled superconducting 3D nanoscale architectures. Nature Communications, 2020, 11, 5697.	12.8	48
22	Local Environment Affects the Activity of Enzymes on a 3D Molecular Scaffold. ACS Nano, 2020, 14, 14646-14654.	14.6	24
23	Engineering Organization of DNA Nano-Chambers through Dimensionally Controlled and Multi-Sequence Encoded Differentiated Bonds. Journal of the American Chemical Society, 2020, 142, 17531-17542.	13.7	44
24	Reactive polymers guide nanoparticle clustering. Science, 2020, 369, 1305-1306.	12.6	1
25	Three-Dimensional Patterning of Nanoparticles by Molecular Stamping. ACS Nano, 2020, 14, 6823-6833.	14.6	42
26	Combinatorial-Entropy-Driven Aggregation in DNA-Grafted Nanoparticles. ACS Nano, 2020, 14, 5628-5635.	14.6	15
27	Valence-programmable nanoparticle architectures. Nature Communications, 2020, 11, 2279.	12.8	37
28	<scp>SAS</scp>PDF: pair distribution function analysis of nanoparticle assemblies from small-angle scattering data. Journal of Applied Crystallography, 2020, 53, 699-709.	4.5	10
29	Directional Assembly of Nanoparticles by DNA Shapes: Towards Designed Architectures and Functionality. Topics in Current Chemistry, 2020, 378, 36.	5.8	18
30	DNA origami protection and molecular interfacing through engineered sequence-defined peptoids. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6339-6348.	7.1	99
31	Dualâ€Scale Nanostructures via Evaporative Assembly. Advanced Materials Interfaces, 2020, 7, 1901954.	3.7	14
32	Three-dimensional DNA-programmable nanoparticle superlattices. Current Opinion in Biotechnology, 2020, 63, 142-150.	6.6	17
33	Ordered three-dimensional nanomaterials using DNA-prescribed and valence-controlled material voxels. Nature Materials, 2020, 19, 789-796.	27.5	172
34	Evaporative Assembly: Dualâ€Scale Nanostructures via Evaporative Assembly (Adv. Mater. Interfaces) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.7	0
35	Unusual packing of soft-shelled nanocubes. Science Advances, 2019, 5, eaaw2399.	10.3	50
36	The Stability of a Nanoparticle Diamond Lattice Linked by DNA. Nanomaterials, 2019, 9, 661.	4.1	5

#	Article	IF	Citations
37	Light-Induced Reversible DNA Ligation of Gold Nanoparticle Superlattices. ACS Nano, 2019, 13, 5771-5777.	14.6	32
38	Controllable Covalent-Bound Nanoarchitectures from DNA Frames. Journal of the American Chemical Society, 2019, 141, 6797-6801.	13.7	35
39	Regioselective surface encoding of nanoparticles for programmable self-assembly. Nature Materials, 2019, 18, 169-174.	27.5	153
40	Liquid interfaces with pH-switchable nanoparticle arrays. Soft Matter, 2018, 14, 3929-3934.	2.7	14
41	Tailoring Surface Opening of Hollow Nanocubes and Their Application as Nanocargo Carriers. ACS Central Science, 2018, 4, 1742-1750.	11.3	13
42	Damping Off Terahertz Sound Modes of a Liquid upon Immersion of Nanoparticles. ACS Nano, 2018, 12, 8867-8874.	14.6	14
43	Bottlebrush-Guided Polymer Crystallization Resulting in Supersoft and Reversibly Moldable Physical Networks. Macromolecules, 2017, 50, 2103-2111.	4.8	38
44	Directionally Interacting Spheres and Rods Form Ordered Phases. ACS Nano, 2017, 11, 4950-4959.	14.6	19
45	Surface Proton Transfer Promotes Four-Electron Oxygen Reduction on Gold Nanocrystal Surfaces in Alkaline Solution. Journal of the American Chemical Society, 2017, 139, 7310-7317.	13.7	51
46	Shape-Specific Patterning of Polymer-Functionalized Nanoparticles. ACS Nano, 2017, 11, 4995-5002.	14.6	63
47	Supra-Nanoparticle Functional Assemblies through Programmable Stacking. ACS Nano, 2017, 11, 7036-7048.	14.6	32
48	Translating Thermal Response of Triblock Copolymer Assemblies in Dilute Solution to Macroscopic Gelation and Phase Separation. Angewandte Chemie - International Edition, 2017, 56, 1491-1494.	13.8	9
49	Translating Thermal Response of Triblock Copolymer Assemblies in Dilute Solution to Macroscopic Gelation and Phase Separation. Angewandte Chemie, 2017, 129, 1513-1516.	2.0	4
50	Chain Conformation near the Buried Interface in Nanoparticle-Stabilized Polymer Thin Films. Macromolecules, 2017, 50, 7657-7665.	4.8	26
51	Three-dimensional molecular and nanoparticle crystallization by DNA nanotechnology. MRS Bulletin, 2017, 42, 904-912.	3.5	30
52	DNA Functionalization of Nanoparticles. Methods in Molecular Biology, 2017, 1500, 99-107.	0.9	5
53	Coherent amplification of X-ray scattering from meso-structures. IUCrJ, 2017, 4, 604-613.	2.2	3
54	Toward the observation of a liquid-liquid phase transition in patchy origami tetrahedra: a numerical study. European Physical Journal E, 2016, 39, 131.	1.6	9

#	Article	IF	Citations
55	DNA-programmable particle superlattices: Assembly, phases, and dynamic control. MRS Bulletin, 2016, 41, 381-387.	3.5	19
56	Nanoparticle assembly: from fundamentals to applications: concluding remarks. Faraday Discussions, 2016, 186, 529-537.	3.2	14
57	Surface patterning of nanoparticles with polymer patches. Nature, 2016, 538, 79-83.	27.8	257
58	The pathway to atomic alignment. Nature Materials, 2016, 15, 1225-1226.	27.5	2
59	Self-organized architectures from assorted DNA-framed nanoparticles. Nature Chemistry, 2016, 8, 867-873.	13.6	210
60	Lattice engineering through nanoparticleâ€"DNA frameworks. Nature Materials, 2016, 15, 654-661.	27.5	198
61	Advancing Reversible Shape Memory by Tuning the Polymer Network Architecture. Macromolecules, 2016, 49, 1383-1391.	4.8	55
62	Diamond family of nanoparticle superlattices. Science, 2016, 351, 582-586.	12.6	331
63	Selective transformations between nanoparticle superlattices via the reprogramming of DNA-mediated interactions. Nature Materials, 2015, 14, 840-847.	27.5	126
64	Prescribed nanoparticle cluster architectures and low-dimensional arrays built using octahedral DNA origami frames. Nature Nanotechnology, 2015, 10, 637-644.	31.5	243
65	Dynamic Tuning of DNA-Nanoparticle Superlattices by Molecular Intercalation of Double Helix. Journal of the American Chemical Society, 2015, 137, 4030-4033.	13.7	48
66	Ion-Mediated Gelation of Aqueous Suspensions of Cellulose Nanocrystals. Biomacromolecules, 2015, 16, 2455-2462.	5.4	173
67	Superlattices assembled through shape-induced directional binding. Nature Communications, 2015, 6, 6912.	12.8	188
68	Light-Harvesting Nanoparticle Coreâ€"Shell Clusters with Controllable Optical Output. ACS Nano, 2015, 9, 5657-5665.	14.6	50
69	Stoichiometric control of DNA-grafted colloid self-assembly. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4982-4987.	7.1	42
70	Tunable Nanoparticle Arrays at Charged Interfaces. ACS Nano, 2014, 8, 9857-9866.	14.6	61
71	Shapeshifting: Reversible Shape Memory in Semicrystalline Elastomers. Macromolecules, 2014, 47, 1768-1776.	4.8	171
72	Structural and Optical Properties of Self-Assembled Chains of Plasmonic Nanocubes. Nano Letters, 2014, 14, 6314-6321.	9.1	92

#	Article	IF	Citations
73	Plasmonic response of DNA-assembled gold nanorods: Effect of DNA linker length, temperature and linker/nanoparticles ratio. Journal of Colloid and Interface Science, 2014, 433, 34-42.	9.4	13
74	Two-Dimensional DNA-Programmable Assembly of Nanoparticles at Liquid Interfaces. Journal of the American Chemical Society, 2014, 136, 8323-8332.	13.7	73
75	Periodic lattices of arbitrary nano-objects: modeling and applications for self-assembled systems. Journal of Applied Crystallography, 2014, 47, 118-129.	4.5	45
76	Super-compressible DNA nanoparticle lattices. Soft Matter, 2013, 9, 10452.	2.7	29
77	A general strategy for the DNA-mediated self-assembly of functional nanoparticles into heterogeneous systems. Nature Nanotechnology, 2013, 8, 865-872.	31.5	267
78	Designing DNA-grafted particles that self-assemble into desired crystalline structures using the genetic algorithm. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18431-18435.	7.1	52
79	Linear Mesostructures in DNAâ€“Nanorod Self-Assembly. ACS Nano, 2013, 7, 5437-5445.	14.6	72
80	DNA-Functionalized Quantum Dots: Fabrication, Structural, and Physicochemical Properties. Langmuir, 2013, 29, 7038-7046.	3.5	59
81	Liquid adsorption at surfaces patterned with cylindrical nano-cavities. Soft Matter, 2013, 9, 10550.	2.7	1
82	Heterogeneous nanoclusters assembled by PNA-templated double-stranded DNA. Nanoscale, 2012, 4, 6722.	5.6	12
83	Internal Structure of Nanoparticle Dimers Linked by DNA. ACS Nano, 2012, 6, 6793-6802.	14.6	43
84	Shaping Phases by Phasing Shapes. ACS Nano, 2011, 5, 8459-8465.	14.6	35
85	Binary Heterogeneous Superlattices Assembled from Quantum Dots and Gold Nanoparticles with DNA. Journal of the American Chemical Society, 2011, 133, 5252-5254.	13.7	88
86	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
87	Sensing Nucleic Acids with Dimer Nanoclusters. Advanced Functional Materials, 2011, 21, 1051-1057.	14.9	11
88	Continuous Phase Transformation in Nanocube Assemblies. Physical Review Letters, 2011, 107, 135701.	7.8	107
89	Photoluminescence enhancement in CdSe/ZnSâ€“DNA linkedâ€“Au nanoparticle heterodimers probed by single molecule spectroscopy. Chemical Communications, 2010, 46, 6111.	4.1	76
90	Switching binary states of nanoparticle superlattices and dimer clusters by DNA strands. Nature Nanotechnology, 2010, 5, 116-120.	31.5	268

#	Article	IF	Citations
91	Assembly, Structure and Optical Response of Three-Dimensional Dynamically Tunable Multicomponent Superlattices. Nano Letters, 2010, 10, 4456-4462.	9.1	66
92	Phase Behavior of Nanoparticles Assembled by DNA Linkers. Physical Review Letters, 2009, 102, 015504.	7.8	116
93	Stepwise surface encoding for high-throughput assembly of nanoclusters. Nature Materials, 2009, 8, 388-391.	27.5	253
94	DNA-guided crystallization of colloidal nanoparticles. Nature, 2008, 451, 549-552.	27.8	1,420
95	DNA Linker-Mediated Crystallization of Nanocolloids. Journal of the American Chemical Society, 2008, 130, 2442-2443.	13.7	72
96	DNA-Based Approach for Interparticle Interaction Control. Langmuir, 2007, 23, 6305-6314.	3.5	61
97	DNAâ€Regulated Microâ€•and Nanoparticle Assembly. Small, 2007, 3, 1678-1682.	10.0	83
98	A Simple Method for Kinetic Control of DNA-Induced Nanoparticle Assembly. Journal of the American Chemical Society, 2006, 128, 14020-14021.	13.7	106
99	Solvent mediated assembly of nanoparticles confined in mesoporous alumina. Physical Review B, 2006, 73, .	3.2	14
100	Rotator Phases and Surface Crystallization in Î±-Eicosene. Journal of Physical Chemistry B, 1998, 102, 2754-2758.	2.6	36
101	Nanopolymers for magnetic applications: how to choose the architecture?. Nanoscale, 0, , .	5.6	5