

Sung-Min Choi

List of Publications by Year in descending order

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79
papers

1,963
citations

218592

26
h-index

265120

42
g-index

84
all docs

84
docs citations

84
times ranked

2706
citing authors

#	ARTICLE	IF	CITATIONS
1	One-Pot Synthesis of Monodisperse Single-Crystalline Spherical Gold Nanoparticles for Universal Seeds. <i>Crystal Growth and Design</i> , 2021, 21, 4133-4140.	1.4	7
2	Depressurization of nuclear power plants through a silica gel-based system. <i>Nuclear Engineering and Design</i> , 2021, 381, 111333.	0.8	0
3	Magnetic withdrawal of particles for multiple purposes in nuclear power plants. <i>Nuclear Engineering and Technology</i> , 2021, 53, 3979-3989.	1.1	0
4	Spontaneous Formation of Highly Stable Nanoparticle Supercrystals Driven by a Covalent Bonding Interaction. <i>Nano Letters</i> , 2021, 21, 258-264.	4.5	13
5	Electromagnetic and optical responses of a composite material comprising individual single-walled carbon-nanotubes with a polymer coating. <i>Scientific Reports</i> , 2020, 10, 9361.	1.6	3
6	A novel approach for critical heat flux enhancement during severe accident mitigation with removal of radioactive materials from the coolant. <i>Nuclear Engineering and Design</i> , 2020, 365, 110715.	0.8	5
7	Individually Silica-Embedded Gold Nanorod Superlattice for High Thermal and Solvent Stability and Recyclable SERS Application. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900986.	1.9	8
8	Micelle-Assisted Formation of Nanoparticle Superlattices and Thermally Reversible Symmetry Transitions. <i>Nano Letters</i> , 2019, 19, 2313-2321.	4.5	10
9	Sub-nanometer scale size-control of iron oxide nanoparticles with drying time of iron oleate. <i>CrystEngComm</i> , 2019, 21, 4063-4071.	1.3	10
10	Gold Nanorods: Individually Silica-Embedded Gold Nanorod Superlattice for High Thermal and Solvent Stability and Recyclable SERS Application (Adv. Mater. Interfaces 21/2019). <i>Advanced Materials Interfaces</i> , 2019, 6, 1970142.	1.9	0
11	Anisotropic interaction driven surface modulation on spray-dried microgranules. <i>Journal of Colloid and Interface Science</i> , 2019, 538, 149-158.	5.0	2
12	Spontaneous hybrids of graphene and carbon nanotube arrays at the liquid-gas interface for Li-ion battery anodes. <i>Chemical Communications</i> , 2018, 54, 5229-5232.	2.2	16
13	Individually isolated single wall carbon nanotubes with controlled surface charge density. <i>Physica B: Condensed Matter</i> , 2018, 551, 197-202.	1.3	0
14	Porous Silica-Coated Gold Sponges with High Thermal and Catalytic Stability. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 22562-22570.	4.0	11
15	Hierarchically self-assembled hexagonal honeycomb and kagome superlattices of binary 1D colloids. <i>Nature Communications</i> , 2017, 8, 360.	5.8	12
16	Seedless Synthesis of Monodisperse Cuboctahedral Gold Nanoparticles with Tunable Sizes. <i>Chemistry of Materials</i> , 2016, 28, 4962-4970.	3.2	16
17	Green Synthesis of High-Purity Mesoporous Gold Sponges Using Self-Assembly of Gold Nanoparticles Induced by Thiolated Poly(ethylene glycol). <i>Langmuir</i> , 2016, 32, 5937-5945.	1.6	27
18	Mechanical, dielectric and structural characterization of cross-linked PEG-diacrylate/ethylammonium nitrate ionogels. <i>Polymer</i> , 2016, 87, 300-307.	1.8	7

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19	Facile approach to prepare Pt decorated SWNT/graphene hybrid catalytic ink. <i>Materials Research Bulletin</i> , 2015, 67, 215-219.	2.7	2
20	Selective distributions of functionalized single-walled carbon nanotubes in a polymeric reverse hexagonal phase. <i>Soft Matter</i> , 2015, 11, 5821-5827.	1.2	1
21	Negative and Positive Anisotropic Thermal Expansions in a Hexagonally Packed Columnar Discotic Liquid Crystal Thin Film. <i>Chemistry of Materials</i> , 2015, 27, 3417-3421.	3.2	12
22	Scalable thermal synthesis of a highly crumpled, highly exfoliated and N-doped graphene/Mn-oxide nanoparticle hybrid for high-performance supercapacitors. <i>RSC Advances</i> , 2015, 5, 42516-42525.	1.7	3
23	Highly Ordered and Highly Aligned Two-Dimensional Binary Superlattice of a SWNT/Cylindrical-Micellar System. <i>Angewandte Chemie - International Edition</i> , 2014, 53, n/a-n/a.	7.2	7
24	Innenr¼cktitelbild: Highly Ordered and Highly Aligned Two-Dimensional Binary Superlattice of a SWNT/Cylindrical-Micellar System (<i>Angew. Chem.</i> 46/2014). <i>Angewandte Chemie</i> , 2014, 126, 12853-12853.	1.6	0
25	Enhancing the catalytic activity of Pt nanoparticles using poly sodium styrene sulfonate stabilized graphene supports for methanol oxidation. <i>Journal of Materials Chemistry A</i> , 2013, 1, 3489.	5.2	73
26	A new 40m small angle neutron scattering instrument at HANARO, Korea. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2013, 721, 17-20.	0.7	30
27	Single-walled carbon nanotube induced re-entrant hexagonal phases in a Pluronic block copolymer system. <i>Soft Matter</i> , 2013, 9, 3050.	1.2	28
28	Hydration forces between surfaces of surfactant coated single-walled carbon nanotubes. <i>Journal of Chemical Physics</i> , 2013, 138, 114701.	1.2	4
29	Block-copolymer-induced long-range depletion interaction and clustering of silica nanoparticles in aqueous solution. <i>Physical Review E</i> , 2013, 87, 042315.	0.8	36
30	Aggregation Behavior of Oppositely Charged Gold Nanorods in Aqueous Solution. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11738-11743.	1.5	16
31	Microstructural changes of globules in calciumâ€“silicateâ€“hydrate gels with and without additives determined by small-angle neutron and X-ray scattering. <i>Journal of Colloid and Interface Science</i> , 2013, 398, 67-73.	5.0	60
32	Small Angle Neutron Scattering at HANARO. <i>Neutron News</i> , 2013, 24, 23-27.	0.1	3
33	Highly ordered superstructures of single wall carbon nanotubeâ€“liposome complexes. <i>Soft Matter</i> , 2012, 8, 9073.	1.2	13
34	Simultaneous reduction, exfoliation and functionalization of graphite oxide into a graphene-platinum nanoparticle hybrid for methanol oxidation. <i>Journal of Materials Chemistry</i> , 2012, 22, 6953.	6.7	57
35	Easy synthesis of nitrogen-doped grapheneâ€“silver nanoparticle hybrids by thermal treatment of graphite oxide with glycine and silver nitrate. <i>Carbon</i> , 2012, 50, 5148-5155.	5.4	39
36	Single-Walled Carbon Nanotube-Induced Lyotropic Phase Behavior of a Polymeric System. <i>Macromolecules</i> , 2012, 45, 986-992.	2.2	13

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37	Transparent conducting hybrid thin films fabricated by layer-by-layer assembly of single-wall carbon nanotubes and conducting polymers. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 108, 305-311.	1.1	11
38	Phase Behavior of Hexa-peri-hexabenzocoronene Derivative in Organic Solvent. <i>Journal of Physical Chemistry B</i> , 2011, 115, 7314-7320.	1.2	17
39	Abrupt heating-induced high-quality crystalline rubrene thin films for organic thin-film transistors. <i>Organic Electronics</i> , 2011, 12, 1446-1453.	1.4	68
40	Thermal Fluctuation and Elasticity of Lipid Vesicles Interacting with Pore-Forming Peptides. <i>Physical Review Letters</i> , 2010, 105, 038101.	2.9	75
41	SANS Investigation of Selectively Distributed Single-Walled Carbon Nanotubes in a Polymeric Lamellar Phase. <i>Macromolecules</i> , 2010, 43, 5411-5416.	2.2	15
42	Effect of Film Thickness on the Columnar Packing Structures of Discotic Supramolecules in Thin Films. <i>ChemPhysChem</i> , 2009, 10, 2642-2646.	1.0	11
43	Thermally Switchable One- and Two-Dimensional Arrays of Single-Walled Carbon Nanotubes in a Polymeric System. <i>Journal of the American Chemical Society</i> , 2009, 131, 16568-16572.	6.6	29
44	Highly Ordered Self-Assembly of 1D Nanoparticles in Phospholipids Driven by Curvature and Electrostatic Interaction. <i>Journal of the American Chemical Society</i> , 2009, 131, 7456-7460.	6.6	13
45	Subdomain Structures of Lamellar and Reverse Hexagonal Pluronic Ternary Systems Investigated by Small Angle Neutron Scattering. <i>Macromolecules</i> , 2009, 42, 2645-2650.	2.2	11
46	OPPORTUNITIES AND CHALLENGES OF NEUTRON SCIENCE AND TECHNOLOGY IN KOREA. <i>Nuclear Engineering and Technology</i> , 2009, 41, 521-530.	1.1	6
47	Charged Rod-Like Nanoparticles Assisting Single-Walled Carbon Nanotube Dispersion in Water. <i>Advanced Functional Materials</i> , 2008, 18, 2685-2691.	7.8	32
48	Uniaxially Oriented, Highly Ordered, Large Area Columnar Superstructures of Discotic Supramolecules using Magnetic Field and Surface Interactions. <i>Advanced Materials</i> , 2008, 20, 1105-1109.	11.1	34
49	Current imbalance in superconducting strand-to-strand joint and its relaxation in multistage cable-in-conduit conductor. <i>Physica C: Superconductivity and Its Applications</i> , 2008, 468, 417-425.	0.6	2
50	Aqueous self-assembly of amphiphilic nanocrystallo-polymers and their surface-active properties. <i>Soft Matter</i> , 2008, 4, 349-356.	1.2	9
51	Organic Solvent-Redispersible Isolated Single Wall Carbon Nanotubes Coated by in-Situ Polymerized Surfactant Monolayer. <i>Macromolecules</i> , 2008, 41, 3261-3266.	2.2	35
52	Water-Redispersible Isolated Single-Walled Carbon Nanotubes Fabricated by In-Situ Polymerization of Micelles. <i>Advanced Materials</i> , 2007, 19, 929-933.	11.1	80
53	Effects of side-chain length on the magnetic response of discotic metallomesogens. <i>Journal of Applied Crystallography</i> , 2007, 40, s68-s72.	1.9	5
54	Thermally Reversible Pluronic/Heparin Nanocapsules Exhibiting 1000-Fold Volume Transition. <i>Langmuir</i> , 2006, 22, 1758-1762.	1.6	91

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55	Magnetic uniaxial alignment of the columnar superstructure of discotic metallomesogens over the centimetre length scale. <i>Journal of Materials Chemistry</i> , 2006, 16, 2785.	6.7	50
56	AC Loss Characteristics of the KSTAR CSMC Estimated by Pulse Test. <i>IEEE Transactions on Applied Superconductivity</i> , 2006, 16, 771-774.	1.1	15
57	Polymerized Rodlike Nanoparticles with Controlled Surface Charge Density. <i>Langmuir</i> , 2006, 22, 2844-2850.	1.6	33
58	Scientific Review: Small Angle Neutron Scattering Research at the HANARO. <i>Neutron News</i> , 2006, 17, 20-23.	0.1	0
59	Current status of the 40Å small-angle neutron scattering instrument development at the HANARO research reactor. <i>Journal of Applied Crystallography</i> , 2006, 40, s442-s446.	1.9	6
60	Design of 40M SANS instrument at HANARO, Korea. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 1177-1179.	1.3	10
61	Magnetic alignment of discotic liquid crystals on substrates. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 798-800.	1.3	16
62	SANS studies of polymerized nano-particles using nonionic/cationic surfactant mixture. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 787-790.	1.3	1
63	Large-Area, Highly Aligned Cylindrical Perfluorinated Supramolecular Dendrimers Using Magnetic Fields. <i>Advanced Materials</i> , 2006, 18, 509-513.	11.1	32
64	Organic Spin Clusters. A Dendritic-Macrocyclic Poly(arylmethyl) Polyradical with Very High Spin of S = 10 and Its Derivatives: Synthesis, Magnetic Studies, and Small-Angle Neutron Scattering. <i>Journal of the American Chemical Society</i> , 2004, 126, 6972-6986.	6.6	76
65	Fate of the Peak Effect in a Type-II Superconductor: Multicriticality in the Bragg-Glass Transition. <i>Physical Review Letters</i> , 2003, 91, 167003.	2.9	46
66	Small-angle neutron scattering measurements of magnetic cluster sizes in magnetic recording disks. <i>Applied Physics Letters</i> , 2003, 82, 3050-3052.	1.5	14
67	Linget al.Reply:. <i>Physical Review Letters</i> , 2002, 89, .	2.9	4
68	Structure and Magnetic Alignment of Metalloporphyrazine Columnar Aggregates in Their Mesophases and Crystalline Phases. <i>Chemistry of Materials</i> , 2002, 14, 1930-1936.	3.2	25
69	The existence of three length scales and their relation to the interfacial curvatures in bicontinuous microemulsions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 304, 85-92.	1.2	26
70	Direct Observation of Spontaneous Weak Ferromagnetism in the Superconductor ErNi ₂ B ₂ C. <i>Physical Review Letters</i> , 2001, 87, 107001.	2.9	59
71	Superheating and Supercooling of Vortex Matter in a Nb Single Crystal: Direct Evidence for a Phase Transition at the Peak Effect from Neutron Diffraction. <i>Physical Review Letters</i> , 2001, 86, 712-715.	2.9	146
72	Focusing cold neutrons with multiple biconcave lenses for small-angle neutron scattering. <i>Journal of Applied Crystallography</i> , 2000, 33, 793-796.	1.9	149

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73	SANS study of the structure and interaction of L64 triblock copolymer micellar solution in the critical region. <i>Journal of Applied Crystallography</i> , 2000, 33, 677-681.	1.9	22
74	Fluorinated Microemulsions: A Study of the Phase Behavior and Structure. <i>Journal of Physical Chemistry B</i> , 1999, 103, 5347-5352.	1.2	34
75	Mesoscopic scale structures in self-organized surfactant solutions determined by small-angle neutron scattering. <i>Supramolecular Science</i> , 1998, 5, 197-206.	0.7	14
76	Measurement of interfacial curvatures in microemulsions using small-angle neutron scattering. <i>Physica B: Condensed Matter</i> , 1997, 241-243, 976-978.	1.3	10
77	The Gaussian curvature of the oil-water interface in an isometric bicontinuous microemulsion. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1997, 236, 38-51.	1.2	3
78	Measurement and Interpretation of Curvatures of the Oil-Water Interface in Isometric Bicontinuous Microemulsions. <i>Journal of Applied Crystallography</i> , 1997, 30, 755-760.	1.9	17
79	Constant time imaging approaches to NMR microscopy. <i>International Journal of Imaging Systems and Technology</i> , 1997, 8, 263-276.	2.7	63