Sung-Min Choi

List of Publications by Year
in descending order

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		218592	265120
79	1,963	26	42
papers	citations	h-index	g-index

84	84	84	2706
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Focusing cold neutrons with multiple biconcave lenses for small-angle neutron scattering. Journal of Applied Crystallography, 2000, 33, 793-796.	1.9	149
2	Superheating and Supercooling of Vortex Matter in a Nb Single Crystal: Direct Evidence for a Phase Transition at the Peak Effect from Neutron Diffraction. Physical Review Letters, 2001, 86, 712-715.	2.9	146
3	Thermally Reversible Pluronic/Heparin Nanocapsules Exhibiting 1000-Fold Volume Transition. Langmuir, 2006, 22, 1758-1762.	1.6	91
4	Water-Redispersible Isolated Single-Walled Carbon Nanotubes Fabricated by Inâ€‰Situ Polymerization of Micelles. Advanced Materials, 2007, 19, 929-933.	11.1	80
5	Organic Spin Clusters. A Dendritic-Macrocyclic Poly(arylmethyl) Polyradical with Very High Spin of S = 10 and Its Derivatives:â€‰ Synthesis, Magnetic Studies, and Small-Angle Neutron Scattering. Journal of the American Chemical Society, 2004, 126, 6972-6986.	6.6	76
6	Thermal Fluctuation and Elasticity of Lipid Vesicles Interacting with Pore-Forming Peptides. Physical Review Letters, 2010, 105, 038101.	2.9	75
7	Enhancing the catalytic activity of Pt nanoparticles using poly sodium styrene sulfonate stabilized graphene supports for methanol oxidation. Journal of Materials Chemistry A, 2013, 1, 3489.	5.2	73
8	Abrupt heating-induced high-quality crystalline rubrene thin films for organic thin-film transistors. Organic Electronics, 2011, 12, 1446-1453.	1.4	68
9	Constant time imaging approaches to NMR microscopy. International Journal of Imaging Systems and Technology, 1997, 8, 263-276.	2.7	63
10	Microstructural changes of globules in calciumâ€“silicateâ€“hydrate gels with and without additives determined by small-angle neutron and X-ray scattering. Journal of Colloid and Interface Science, 2013, 398, 67-73.	5.0	60
11	Direct Observation of Spontaneous Weak Ferromagnetism in the SuperconductorErNi2B2C. Physical Review Letters, 2001, 87, 107001.	2.9	59
12	Simultaneous reduction, exfoliation and functionalization of graphite oxide into a graphene-platinum nanoparticle hybrid for methanol oxidation. Journal of Materials Chemistry, 2012, 22, 6953.	6.7	57
13	Magnetic uniaxial alignment of the columnar superstructure of discotic metallomesogens over the centimetre length scale. Journal of Materials Chemistry, 2006, 16, 2785.	6.7	50
14	Fate of the Peak Effect in a Type-II Superconductor: Multicriticality in the Bragg-Glass Transition. Physical Review Letters, 2003, 91, 167003.	2.9	46
15	Easy synthesis of nitrogen-doped grapheneâ€“silver nanoparticle hybrids by thermal treatment of graphite oxide with glycine and silver nitrate. Carbon, 2012, 50, 5148-5155.	5.4	39
16	Block-copolymer-induced long-range depletion interaction and clustering of silica nanoparticles in aqueous solution. Physical Review E, 2013, 87, 042315.	0.8	36
17	Organic Solvent-Redispersible Isolated Single Wall Carbon Nanotubes Coated by in-Situ Polymerized Surfactant Monolayer. Macromolecules, 2008, 41, 3261-3266.	2.2	35
18	Fluorinated Microemulsions:Â A Study of the Phase Behavior and Structure. Journal of Physical Chemistry B, 1999, 103, 5347-5352.	1.2	34

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19	Uniaxially Oriented, Highly Ordered, Large Area Columnar Superstructures of Discotic Supramolecules using Magnetic Field and Surface Interactions. Advanced Materials, 2008, 20, 1105-1109.	11.1	34
20	Polymerized Rodlike Nanoparticles with Controlled Surface Charge Density. Langmuir, 2006, 22, 2844-2850.	1.6	33
21	Large-Area, Highly Aligned Cylindrical Perfluorinated Supramolecular Dendrimers Using Magnetic Fields. Advanced Materials, 2006, 18, 509-513.	11.1	32
22	Charged Rodâ€Like Nanoparticles Assisting Singleâ€Walled Carbon Nanotube Dispersion in Water. Advanced Functional Materials, 2008, 18, 2685-2691.	7.8	32
23	A new 40m small angle neutron scattering instrument at HANARO, Korea. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 721, 17-20.	0.7	30
24	Thermally Switchable One- and Two-Dimensional Arrays of Single-Walled Carbon Nanotubes in a Polymeric System. Journal of the American Chemical Society, 2009, 131, 16568-16572.	6.6	29
25	Single-walled carbon nanotube induced re-entrant hexagonal phases in a Pluronic block copolymer system. Soft Matter, 2013, 9, 3050.	1.2	28
26	Green Synthesis of High-Purity Mesoporous Gold Sponges Using Self-Assembly of Gold Nanoparticles Induced by Thiolated Poly(ethylene glycol). Langmuir, 2016, 32, 5937-5945.	1.6	27
27	The existence of three length scales and their relation to the interfacial curvatures in bicontinuous microemulsions. Physica A: Statistical Mechanics and Its Applications, 2002, 304, 85-92.	1.2	26
28	Structure and Magnetic Alignment of Metalloporphyrazine Columnar Aggregates in Their Mesophases and Crystalline Phasesâ€. Chemistry of Materials, 2002, 14, 1930-1936.	3.2	25
29	SANS study of the structure and interaction of L64 triblock copolymer micellar solution in the critical region. Journal of Applied Crystallography, 2000, 33, 677-681.	1.9	22
30	Measurement and Interpretation of Curvatures of the Oilâ€“Water Interface in Isometric Bicontinuous Microemulsions. Journal of Applied Crystallography, 1997, 30, 755-760.	1.9	17
31	Phase Behavior of Hexa-peri-hexabenzocoronene Derivative in Organic Solvent. Journal of Physical Chemistry B, 2011, 115, 7314-7320.	1.2	17
32	Magnetic alignment of discotic liquid crystals on substrates. Physica B: Condensed Matter, 2006, 385-386, 798-800.	1.3	16
33	Aggregation Behavior of Oppositely Charged Gold Nanorods in Aqueous Solution. Journal of Physical Chemistry C, 2013, 117, 11738-11743.	1.5	16
34	Seedless Synthesis of Monodisperse Cuboctahedral Gold Nanoparticles with Tunable Sizes. Chemistry of Materials, 2016, 28, 4962-4970.	3.2	16
35	Spontaneous hybrids of graphene and carbon nanotube arrays at the liquidâ€“gas interface for Li-ion battery anodes. Chemical Communications, 2018, 54, 5229-5232.	2.2	16
36	AC Loss Characteristics of the KSTAR CSMC Estimated by Pulse Test. IEEE Transactions on Applied Superconductivity, 2006, 16, 771-774.	1.1	15

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37	SANS Investigation of Selectively Distributed Single-Walled Carbon Nanotubes in a Polymeric Lamellar Phase. Macromolecules, 2010, 43, 5411-5416.	2.2	15
38	Mesoscopic scale structures in self-organized surfactant solutions determined by small-angle neutron scattering. Supramolecular Science, 1998, 5, 197-206.	0.7	14
39	Small-angle neutron scattering measurements of magnetic cluster sizes in magnetic recording disks. Applied Physics Letters, 2003, 82, 3050-3052.	1.5	14
40	Highly Ordered Self-Assembly of 1D Nanoparticles in Phospholipids Driven by Curvature and Electrostatic Interaction. Journal of the American Chemical Society, 2009, 131, 7456-7460.	6.6	13
41	Highly ordered superstructures of single wall carbon nanotubeâ€“liposome complexes. Soft Matter, 2012, 8, 9073.	1.2	13
42	Single-Walled Carbon Nanotube-Induced Lyotropic Phase Behavior of a Polymeric System. Macromolecules, 2012, 45, 986-992.	2.2	13
43	Spontaneous Formation of Highly Stable Nanoparticle Supercrystals Driven by a Covalent Bonding Interaction. Nano Letters, 2021, 21, 258-264.	4.5	13
44	Negative and Positive Anisotropic Thermal Expansions in a Hexagonally Packed Columnar Discotic Liquid Crystal Thin Film. Chemistry of Materials, 2015, 27, 3417-3421.	3.2	12
45	Hierarchically self-assembled hexagonal honeycomb and kagome superlattices of binary 1D colloids. Nature Communications, 2017, 8, 360.	5.8	12
46	Effect of Film Thickness on the Columnar Packing Structures of Discotic Supramolecules in Thin Films. ChemPhysChem, 2009, 10, 2642-2646.	1.0	11
47	Subdomain Structures of Lamellar and Reverse Hexagonal Pluronic Ternary Systems Investigated by Small Angle Neutron Scattering. Macromolecules, 2009, 42, 2645-2650.	2.2	11
48	Transparent conducting hybrid thin films fabricated by layer-by-layer assembly of single-wall carbon nanotubes and conducting polymers. Applied Physics A: Materials Science and Processing, 2012, 108, 305-311.	1.1	11
49	Porous Silica-Coated Gold Sponges with High Thermal and Catalytic Stability. ACS Applied Materials & Interfaces, 2018, 10, 22562-22570.	4.0	11
50	Measurement of interfacial curvatures in microemulsions using small-angle neutron scattering. Physica B: Condensed Matter, 1997, 241-243, 976-978.	1.3	10
51	Design of 40M SANS instrument at HANARO, Korea. Physica B: Condensed Matter, 2006, 385-386, 1177-1179.	1.3	10
52	Micelle-Assisted Formation of Nanoparticle Superlattices and Thermally Reversible Symmetry Transitions. Nano Letters, 2019, 19, 2313-2321.	4.5	10
53	Sub-nanometer scale size-control of iron oxide nanoparticles with drying time of iron oleate. CrystEngComm, 2019, 21, 4063-4071.	1.3	10
54	Aqueous self-assembly of amphiphilic nanocrystallo-polymers and their surface-active properties. Soft Matter, 2008, 4, 349-356.	1.2	9

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55	Individually Silicaâ€Embedded Gold Nanorod Superlattice for High Thermal and Solvent Stability and Recyclable SERS Application. Advanced Materials Interfaces, 2019, 6, 1900986.	1.9	8
56	Highly Ordered and Highly Aligned Two-Dimensional Binary Superlattice of a SWNT/Cylindrical-Micellar System. Angewandte Chemie - International Edition, 2014, 53, n/a-n/a.	7.2	7
57	Mechanical, dielectric and structural characterization of cross-linked PEG-diacrylate/ethylammonium nitrate ionogels. Polymer, 2016, 87, 300-307.	1.8	7
58	One-Pot Synthesis of Monodisperse Single-Crystalline Spherical Gold Nanoparticles for Universal Seeds. Crystal Growth and Design, 2021, 21, 4133-4140.	1.4	7
59	Current status of the 40â€…m small-angle neutron scattering instrument development at the HANARO research reactor. Journal of Applied Crystallography, 2006, 40, s442-s446.	1.9	6
60	OPPORTUNITIES AND CHALLENGES OF NEUTRON SCIENCE AND TECHNOLOGY IN KOREA. Nuclear Engineering and Technology, 2009, 41, 521-530.	1.1	6
61	Effects of side-chain length on the magnetic response of discotic metallomesogens. Journal of Applied Crystallography, 2007, 40, s68-s72.	1.9	5
62	A novel approach for critical heat flux enhancement during severe accident mitigation with removal of radioactive materials from the coolant. Nuclear Engineering and Design, 2020, 365, 110715.	0.8	5
63	Linget al.Reply:. Physical Review Letters, 2002, 89, .	2.9	4
64	Hydration forces between surfaces of surfactant coated single-walled carbon nanotubes. Journal of Chemical Physics, 2013, 138, 114701.	1.2	4
65	The Gaussian curvature of the oil-water interface in an isometric bicontinuous microemulsion. Physica A: Statistical Mechanics and Its Applications, 1997, 236, 38-51.	1.2	3
66	Small Angle Neutron Scattering at HANARO. Neutron News, 2013, 24, 23-27.	0.1	3
67	Scalable thermal synthesis of a highly crumpled, highly exfoliated and N-doped graphene/Mn-oxide nanoparticle hybrid for high-performance supercapacitors. RSC Advances, 2015, 5, 42516-42525.	1.7	3
68	Electromagnetic and optical responses of a composite material comprising individual single-walled carbon-nanotubes with a polymer coating. Scientific Reports, 2020, 10, 9361.	1.6	3
69	Current imbalance in superconducting strand-to-strand joint and its relaxation in multistage cable-in-conduit conductor. Physica C: Superconductivity and Its Applications, 2008, 468, 417-425.	0.6	2
70	Facile approach to prepare Pt decorated SWNT/graphene hybrid catalytic ink. Materials Research Bulletin, 2015, 67, 215-219.	2.7	2
71	Anisotropic interaction driven surface modulation on spray-dried microgranules. Journal of Colloid and Interface Science, 2019, 538, 149-158.	5.0	2
72	SANS studies of polymerized nano-particles using nonionic/cationic surfactant mixture. Physica B: Condensed Matter, 2006, 385-386, 787-790.	1.3	1

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73	Selective distributions of functionalized single-walled carbon nanotubes in a polymeric reverse hexagonal phase. Soft Matter, 2015, 11, 5821-5827.	1.2	1
74	Scientific Review: Small Angle Neutron Scattering Research at the HANARO. Neutron News, 2006, 17, 20-23.	0.1	0
75	InnenrÃ¼cktitelbild: Highly Ordered and Highly Aligned Two-Dimensional Binary Superlattice of a SWNT/Cylindrical-Micellar System (Angew. Chem. 46/2014). Angewandte Chemie, 2014, 126, 12853-12853.	1.6	0
76	Individually isolated single wall carbon nanotubes with controlled surface charge density. Physica B: Condensed Matter, 2018, 551, 197-202.	1.3	0
77	Gold Nanorods: Individually Silicaâ€Embedded Gold Nanorod Superlattice for High Thermal and Solvent Stability and Recyclable SERS Application (Adv. Mater. Interfaces 21/2019). Advanced Materials Interfaces, 2019, 6, 1970142.	1.9	0
78	Depressurization of nuclear power plants through a silica gel-based system. Nuclear Engineering and Design, 2021, 381, 111333.	0.8	0
79	Magnetic withdrawal of particles for multiple purposes in nuclear power plants. Nuclear Engineering and Technology, 2021, 53, 3979-3989.	1.1	0