Nobuyoshi Miyamoto

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Synthesis of Mesoporous Pt Films with Tunable Pore Sizes from Aqueous Surfactant Solutions. Chemistry of Materials, 2012, 24, 1591-1598.	6.7	164
2	Mesoporous Metallic Cells: Design of Uniformly Sized Hollow Mesoporous Pt–Ru Particles with Tunable Shell Thicknesses. Small, 2013, 9, 1047-1051.	10.0	159
3	Gigantic Swelling of Inorganic Layered Materials: A Bridge to Molecularly Thin Two-Dimensional Nanosheets. Journal of the American Chemical Society, 2014, 136, 5491-5500.	13.7	125
4	Unusually stable ~100-fold reversible and instantaneous swelling of inorganic layered materials. Nature Communications, 2013, 4, 1632.	12.8	119
5	Formation of extraordinarily large nanosheets from K4Nb6O17 crystalsElectronic supplementary information (ESI) available: powder XRD patterns of the slurries, AFM image of the sample in the supernatant, image of K4Nb6O17 crystals. See http://www.rsc.org/suppdata/cc/b2/b206998a/. Chemical Communications, 2002., 2378-2379.	4.1	113
6	Liquid Crystalline Nanosheet Colloids with Controlled Particle Size Obtained by Exfoliating Single Crystal of Layered Niobate K4Nb6O17. Journal of Physical Chemistry B, 2004, 108, 6152-6159.	2.6	109
7	Adsorption and aggregation of a cationic cyanine dye on layered clay minerals. Applied Clay Science, 2000, 16, 161-170.	5.2	103
8	Liquid Crystalline Nature of K4Nb6O17 Nanosheet Sols and Their Macroscopic Alignment. Advanced Materials, 2002, 14, 1267-1270.	21.0	103
9	Surfactant-Directed Synthesis of Mesoporous Pd Films with Perpendicular Mesochannels as Efficient Electrocatalysts. Journal of the American Chemical Society, 2015, 137, 11558-11561.	13.7	100
10	Exfoliation and film preparation of a layered titanate, Na2Ti3O7, and intercalation of pseudoisocyanine dyeElectronic supplementary information (ESI) available: XRD patterns of (a) the starting material Na2Ti3O7, (b) H/Ti3O7, (c) MA/Ti3O7 and (d) PA/Ti3O7. See http://www.rsc.org/suppdata/jm/b3/b308800f/. Journal of Materials Chemistry, 2004, 14, 165.	6.7	96
11	Lignocellulosic biomass-derived, graphene sheet-like porous activated carbon for electrochemical supercapacitor and catechin sensing. RSC Advances, 2017, 7, 45668-45675.	3.6	95
12	Photocontrol of the Basal Spacing of Azobenzene–Magadiite Intercalation Compound. Advanced Materials, 2001, 13, 1107-1109.	21.0	83
13	Functional porous carbon–ZnO nanocomposites for high-performance biosensors and energy storage applications. Physical Chemistry Chemical Physics, 2016, 18, 16466-16475.	2.8	78
14	Liquid crystalline inorganic nanosheets for facile synthesis of polymer hydrogels with anisotropies in structure, optical property, swelling/deswelling, and ion transport/fixation. Chemical Communications, 2013, 49, 1082.	4.1	69
15	Low-Temperature Chemical Synthesis of CoWO ₄ Nanospheres for Sensitive Nonenzymatic Glucose Sensor. Journal of Physical Chemistry C, 2016, 120, 17024-17028.	3.1	69
16	Extremely Stable Photoinduced Charge Separation in a Colloidal System Composed of Semiconducting Niobate and Clay Nanosheets. Angewandte Chemie - International Edition, 2007, 46, 4123-4127.	13.8	68
17	Liquid Crystalline Inorganic Nanosheet Colloids Derived From Layered Materials. Israel Journal of Chemistry, 2012, 52, 881-894.	2.3	68
18	Liquid crystal phases in the aqueous colloids of size-controlled fluorinated layered clay mineral nanosheets. Chemical Communications, 2010, 46, 4166.	4.1	66

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19	Photoâ€Induced Anomalous Deformation of Poly(<i>N</i> â€Isopropylacrylamide) Gel Hybridized with an Inorganic Nanosheet Liquid Crystal Aligned by Electric Field. Macromolecular Rapid Communications, 2014, 35, 1741-1746.	3.9	65
20	Polymeric Micelle Assembly with Inorganic Nanosheets for Construction of Mesoporous Architectures with Crystallized Walls. Angewandte Chemie - International Edition, 2015, 54, 4222-4225.	13.8	64
21	Visible Light Induced Electron Transfer and Long-Lived Charge Separated State in Cyanine Dye/Layered Titanate Intercalation Compounds. Journal of Physical Chemistry B, 2004, 108, 4268-4274.	2.6	63
22	Intercalation of a cationic azobenzene into montmorillonite. Applied Clay Science, 2003, 22, 179-185.	5.2	62
23	Mesoporous silica as smart inorganic filler: preparation of robust silicone rubber with low thermal expansion property. Journal of Materials Chemistry, 2011, 21, 5338.	6.7	62
24	NiCo2O4-decorated porous carbon nanosheets for high-performance supercapacitors. Electrochimica Acta, 2017, 247, 288-295.	5.2	59
25	Liquid Crystalline Behavior and Related Properties of Colloidal Systems of Inorganic Oxide Nanosheets. Materials, 2009, 2, 1734-1761.	2.9	57
26	Stable liquid crystalline phases of colloidally dispersed exfoliated layered niobatesElectronic supplementary information (ESI) available: XRD patterns of the samples. See http://www.rsc.org/suppdata/cc/b3/b309628a/. Chemical Communications, 2004, , 78.	4.1	47
27	Rapid Fabrication of Mesoporous Titania Films with Controlled Macroporosity to Improve Photocatalytic Property. Chemistry - an Asian Journal, 2009, 4, 1486-1493.	3.3	44
28	Unusual reinforcement of silicone rubber compounds containing mesoporous silica particles as inorganic fillers. Physical Chemistry Chemical Physics, 2012, 14, 3400.	2.8	42
29	Uni-Directional Orientation of Cyanine Dye Aggregates on a K4Nb6O17 Single Crystal: Toward Novel Supramolecular Assemblies with Three-Dimensional Anisotropy. Journal of the American Chemical Society, 2001, 123, 6949-6950.	13.7	39
30	Intercalation of a cationic cyanine dye into the layer silicate magadiite. Applied Clay Science, 2001, 19, 39-46.	5.2	38
31	Liquid Crystalline Colloidal System Obtained by Mixing Niobate and Aluminosilicate Nanosheets:Â A Spectroscopic Study Using a Probe Dye. Langmuir, 2003, 19, 8057-8064.	3.5	38
32	Highly Photoactive Porous Anatase Films Obtained by Deformation of 3D Mesostructures. Chemistry - A European Journal, 2011, 17, 4005-4011.	3.3	36
33	Perovskite Nanosheet Hydrogels with Mechanochromic Structural Color. Angewandte Chemie - International Edition, 2021, 60, 8466-8471.	13.8	36
34	Accordion-like swelling of layered perovskite crystals via massive permeation of aqueous solutions into 2D oxide galleries. Chemical Communications, 2015, 51, 17068-17071.	4.1	35
35	Sol–gel transition of nanosheet colloids of layered niobate K4Nb6O17. Journal of Materials Chemistry, 2002, 12, 1245-1246.	6.7	32
36	Solâ^'Gel Transition of Niobium Oxide Nanosheet Colloids:Â Hierarchical Aspect of a Novel Macroscopic Property Appearing in Colloidally Dispersed States of Layered Niobate K4Nb6O17. Langmuir, 2003, 19, 3157-3163.	3.5	29

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37	Hybridization of Photoactive Titania Nanoparticles with Mesoporous Silica Nanoparticles and Investigation of Their Photocatalytic Activity. Bulletin of the Chemical Society of Japan, 2011, 84, 812-817.	3.2	29
38	Condensation―and Crystallinityâ€Controlled Synthesis of Titanium Oxide Films with Assessed Mesopores. Chemistry - A European Journal, 2010, 16, 12069-12073.	3.3	27
39	Perovskite Nanosheet Hydrogels with Mechanochromic Structural Color. Angewandte Chemie, 2021, 133, 8547-8552.	2.0	27
40	Photoinduced Charge Separation in a Colloidal System of Exfoliated Layered Semiconductor Controlled by Coexisting Aluminosilicate Clay. Journal of Physical Chemistry B, 2009, 113, 1323-1331.	2.6	26
41	Intercalation of cationic phthalocyanines into layered titanates and control of the microstructuresElectronic supplementary information (ESI) available: CHN analytical data and amounts of PA and Pc intercalated in Ti3O7 (Table S1), and XRD patterns of products derived from H2Ti3O7 (Fig. S1). See http://www.rsc.org/suppdata/jm/b2/b210237b/. Journal of Materials Chemistry,	6.7	24
42	Effective Use of Mesoporous Silica Filler: Comparative Study on Thermal Stability and Transparency of Silicone Rubbers Loaded with Various Kinds of Silica Particles. European Journal of Inorganic Chemistry, 2014, 2014, 2773-2778.	2.0	24
43	Polymeric micelle assembly for the direct synthesis of functionalized mesoporous silica with fully accessible Pt nanoparticles toward an improved CO oxidation reaction. Chemical Communications, 2014, 50, 9101-9104.	4.1	24
44	Exfoliated Nanosheets of Layered Perovskite KCa ₂ Nb ₃ O ₁₀ as an Inorganic Liquid Crystal. Chemistry - an Asian Journal, 2011, 6, 2936-2939.	3.3	23
45	Thermo-responsive hydrogels containing mesoporous silica toward controlled and sustainable releases. Materials Letters, 2016, 168, 176-179.	2.6	23
46	In situ and real-time small-angle neutron scattering studies of living anionic polymerization process and polymerization-induced self-assembly of block copolymers. Physica B: Condensed Matter, 2006, 385-386, 742-744.	2.7	22
47	Hierarchical structure of niobate nanosheets in aqueous solution. Journal of Applied Crystallography, 2007, 40, s101-s105.	4.5	22
48	Aspect-ratio-dependent phase transitions and concentration fluctuations in aqueous colloidal dispersions of charged platelike particles. Physical Review E, 2012, 85, 011403.	2.1	22
49	High Virus Removal by Selfâ€Organized Nanostructured 2D Liquidâ€Crystalline Smectic Membranes for Water Treatment. Small, 2020, 16, e2001721.	10.0	22
50	A facile electrochemical synthesis strategy for Cu ₂ O (cubes, sheets and flowers) microstructured materials for sensitive detection of 4-nitrophenol. Analytical Methods, 2016, 8, 5906-5910.	2.7	21
51	Combined SANS, SEC, NMR, and UVâ^'vis Studies of Simultaneous Living Anionic Copolymerization Process in a Concentrated Solution: Elucidation of Building-Up Processes of Molecules and Their Self-Assemblies. Macromolecules, 2010, 43, 2948-2959.	4.8	20
52	Combined SANS, SEC, NMR, and UVâ°'Vis Studies of Simultaneous Living Anionic Copolymerization Process: Simultaneous Elucidation of Propagating Living Chains at Three Different Length Scales. Macromolecules, 2009, 42, 1739-1748.	4.8	19
53	Mesoporous Silica Particles as Topologically Crosslinking Fillers for Poly(<i>N</i> â€isopropylacrylamide) Hydrogels. Chemistry - A European Journal, 2014, 20, 14955-14958. ————————————————————————————————————	3.3	16
54	Preparation of porous solids composed of layered niobate walls from colloidal mixtures of niobate nanosheets and polystyrene spheres. Journal of Colloid and Interface Science, 2007, 313, 369-373.	9.4	15

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55	A facile low-temperature synthesis of V2O5 flakes for electrochemical detection of hydrogen peroxide sensor. Ionics, 2017, 23, 2193-2200.	2.4	15
56	A Facile Synthesis of Cd(OH) ₂ â€rGO Nanocomposites for the Practical Electrochemical Detection of Acetaminophen. Electroanalysis, 2017, 29, 280-286.	2.9	15
57	Lamellar Mesostructured Aluminum Organophosphonate with Unique Crystalline Framework. Chemistry Letters, 2009, 38, 916-917.	1.3	14
58	Synthesis of mesoporous Nb2O5 with crystalline walls and investigation of their photocatalytic activity. Journal of the Ceramic Society of Japan, 2011, 119, 405-411.	1.1	14
59	A new composite thixotropic hydrogel composed of a low-molecular-weight hydrogelator and a nanosheet. RSC Advances, 2014, 4, 44837-44840.	3.6	14
60	Swelling Inhibition of Liquid Crystalline Colloidal Montmorillonite and Beidellite Clays by DNA. Scientific Reports, 2018, 8, 4367.	3.3	13
61	Sandwich organization of non-ionic surfactant liquid crystalline phases as induced by large inorganic K ₄ Nb ₆ O ₁₇ nanosheets. Chemical Communications, 2016, 52, 1594-1597.	4.1	12
62	Synthesis of an electronically conductive hydrogel from a hydrogelator and a conducting polymer. New Journal of Chemistry, 2017, 41, 9602-9606.	2.8	11
63	Aggregation of a Cationic Cyanine Dye Intercalated in the Interlayer Space of a Layered Titanate Na ₂ Ti ₃ O ₇ . Molecular Crystals and Liquid Crystals, 2000, 341, 259-264.	0.3	10
64	In situ observation of the evaporation-induced self-assembling process of PS-b-PEO diblock copolymers for the fabrication of titania films by confocal laser scanning microscopy. Chemical Communications, 2015, 51, 1230-1233.	4.1	10
65	Aerosol-Assisted Synthesis of Nanoporous Silica/Titania Nanoparticles Composites and Investigation of Their Photocatalytic Properties. Journal of Nanoscience and Nanotechnology, 2011, 11, 3256-3264.	0.9	9
66	Aggregation behavior of polyisoprene chain ends during living anionic polymerization as investigated by time-resolved small-angle neutron scattering. Physica B: Condensed Matter, 2006, 385-386, 752-755.	2.7	8
67	Anisotropic Self-Oscillating Reaction in Liquid Crystalline Nanosheet Hydrogels. Journal of Physical Chemistry B, 2018, 122, 2957-2961.	2.6	8
68	Mesoscopic Architectures Made of Electrically Charged Binary Colloidal Nanosheets in Aqueous System. Langmuir, 2019, 35, 14543-14552.	3.5	8
69	Thixotropic stiff hydrogels from a new class of oleoyl- <scp>d</scp> -glucamine-based low-molecular-weight gelators. RSC Advances, 2017, 7, 41686-41692.	3.6	7
70	New composite thixotropic hydrogel composed of a polymer hydrogelator and a nanosheet. Royal Society Open Science, 2017, 4, 171117.	2.4	7
71	Massive hydration-driven swelling of layered perovskite niobate crystals in aqueous solutions of organo-ammonium bases. Dalton Transactions, 2018, 47, 3022-3028.	3.3	7
72	Liquid Crystalline Colloidal Mixture of Nanosheets and Rods with Dynamically Variable Length. ACS Omega, 2018, 3, 14869-14874.	3.5	7

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73	Perspective: Recent Developments in Hybrid Hydrogels Containing Inorganic Nanomaterials. Nanoscience and Nanotechnology Letters, 2016, 8, 355-359.	0.4	7
74	Fundamental Study of Soft Actuator Using Anisotropic Gel Hybridized with Nanosheet Liquid Crystal: Analysis of Heat Characteristics and Length Control. Procedia Computer Science, 2017, 105, 62-67.	2.0	5
75	Colloidal Nanosheets. Nanostructure Science and Technology, 2017, , 201-260.	0.1	5
76	Angular-Independent Structural Colors of Clay Dispersions. ACS Omega, 2022, 7, 6070-6074.	3.5	5
77	Living anionic polymerization of methyl methacrylate controlled by metal-free phosphazene catalyst as observed by small-angle neutron scattering, gel-permeation chromatography and UV–visible spectroscopy. Journal of Applied Crystallography, 2007, 40, s568-s572.	4.5	4
78	Synthesis of Mesoporous Titania Nanoparticles with Anatase Frameworks and Investigation of Their Photocatalytic Performance. Journal of Nanoscience and Nanotechnology, 2012, 12, 4502-4507.	0.9	4
79	Functional Layered Compounds forÂNanoarchitectonics. , 2017, , 173-192.		4
80	Preparation of Ultraviolet Curing Type Silicone Rubbers Containing Mesoporous Silica Fillers. Journal of Nanoscience and Nanotechnology, 2018, 18, 86-89.	0.9	4
81	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. PLoS ONE, 2020, 15, e0231352.	2.5	4
82	Structure-regulated tough elastomers of liquid crystalline inorganic nanosheet/polyurethane nanocomposites. Materials Advances, 2021, 2, 1035-1042.	5.4	4
83	Design and phase transition behavior of siloxane-based monomeric and dimeric liquid crystals bearing cholesteryl mesogenic groups. Journal of Organometallic Chemistry, 2019, 886, 34-39.	1.8	3
84	Unusual Actuation of Precisely Designable Two-Layer Poly(<i>N</i> -isopropylacrylamide) Gel Films Composited with Asymmetrically Aligned Liquid Crystalline Nanosheets. ACS Applied Polymer Materials, 2022, 4, 4664-4672.	4.4	3
85	Synthesis of Photocatalytic Niobate Nanosheet/Polymer Composite Microgel Particles through Microfluidic Approach. Key Engineering Materials, 0, 804, 75-82.	0.4	2
86	Liquid Crystalline Nanosheet Colloids with Controlled Particle Size Obtained by Exfoliating Single Crystal of Layered Niobate K4Nb6O17 ChemInform, 2004, 35, no.	0.0	1
87	Macromol. Rapid Commun. 20/2014. Macromolecular Rapid Communications, 2014, 35, 1812-1812.	3.9	1
88	Synthesis of Anisotropic Poly(<i>N</i> -isorpopylacrylamide)/Inorganic-Nanosheets Composite Gels by <i>I³</i> -Radiation-Induced Polymerization and Crosslinking. Journal of Nanoscience and Nanotechnology, 2016, 16, 9231-9237.	0.9	1
89	Inorganic Nanosheet Liquid Crystals: Self-Assembled Structures in Dispersions of Two-Dimensional Inorganic Polymers. Kobunshi Ronbunshu, 2016, 73, 262-280.	0.2	1
90	Understanding Deformation Motion of Colloidal Nanosheets from CLSM Images using Deep Learning-based Approach. , 2018, , .		1

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91	Detecting Nanosheet Objects from Noisy CLSM Images Using Deep Learning Approach. Key Engineering Materials, 0, 804, 11-15.	0.4	1
92	Step Response Characteristics of Anisotropic Gel Actuator Hybridized with Nanosheet Liquid Crystal. Journal of Robotics and Mechatronics, 2019, 31, 647-656.	1.0	1
93	Stable Liquid Crystalline Phases of Colloidally Dispersed Exfoliated Layered Niobates ChemInform, 2004, 35, no.	0.0	0
94	Rücktitelbild: Polymeric Micelle Assembly with Inorganic Nanosheets for Construction of Mesoporous Architectures with Crystallized Walls (Angew. Chem. 14/2015). Angewandte Chemie, 2015, 127, 4478-4478.	2.0	0
95	Inorganic nanosheet liquid crystals and their applications (Conference Presentation). , 2016, , .		0
96	A Belousov-Zhabotinsky Oscillator Driven by a Water-Soluble Metalloporphyrin. ChemistrySelect, 2016, 1, 877-878.	1.5	0
97	Basic Study of Heating Response Measurement for Nanosheet Particle/Polymer Composite Gel Actuator with Anisotropic Contraction. Key Engineering Materials, 0, 804, 17-21.	0.4	0
98	Water Treatment: High Virus Removal by Selfâ€Organized Nanostructured 2D Liquidâ€Crystalline Smectic Membranes for Water Treatment (Small 23/2020). Small, 2020, 16, 2070128.	10.0	0
99	Grafting of Fluorescence-labeled ssDNA onto Inorganic Nanosheets and Detection of a Target DNA. Chemistry Letters, 2021, 50, 632-635.	1.3	0
100	(Invited) Anisotropic Self-Oscillating Reaction in Liquid Crystalline Nanosheets Hydrogels. ECS Meeting Abstracts, 2018, , .	0.0	0
101	Hydrogel Filled with Monodisperse Mesoporous Silica. ECS Meeting Abstracts, 2018, , .	0.0	0
102	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. , 2020, 15, e0231352.		0
103	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. , 2020, 15, e0231352.		0
104	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. , 2020, 15, e0231352.		0
105	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. , 2020, 15, e0231352.		0