Nobuyoshi Miyamoto

List of Publications by Year
in descending order

105 papers	3,323 citations	126907 33 h-index	155660 55 g-index
109 all docs	109 docs citations	109 times ranked	3798 citing authors

#	Article	IF	Citations
1	Angular-Independent Structural Colors of Clay Dispersions. ACS Omega, 2022, 7, 6070-6074.	3.5	5
2	Unusual Actuation of Precisely Designable Two-Layer Poly(N-isopropylacrylamide) Gel Films Composited with Asymmetrically Aligned Liquid Crystalline Nanosheets. ACS Applied Polymer Materials, 2022, 4, 4664-4672.	4.4	3
3	Perovskite Nanosheet Hydrogels with Mechanochromic Structural Color. Angewandte Chemie - International Edition, 2021, 60, 8466-8471.	13.8	36
4	Perovskite Nanosheet Hydrogels with Mechanochromic Structural Color. Angewandte Chemie, 2021, 133, 8547-8552.	2.0	27
5	Grafting of Fluorescence-labeled ssDNA onto Inorganic Nanosheets and Detection of a Target DNA. Chemistry Letters, 2021, 50, 632-635.	1.3	0
6	Structure-regulated tough elastomers of liquid crystalline inorganic nanosheet/polyurethane nanocomposites. Materials Advances, 2021, 2, 1035-1042.	5.4	4
7	High Virus Removal by Selfâ€Organized Nanostructured 2D Liquidâ€Crystalline Smectic Membranes for Water Treatment. Small, 2020, 16, e2001721.	10.0	22
8	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
9	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. PLoS ONE, 2020, 15, e0231352.	2.5	4
10	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. , 2020, 15, e0231352.		0
11	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. , 2020, 15, e0231352.		0
12	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. , 2020, 15, e0231352.		0
13	Radial alignment of microtubules through tubulin polymerization in an evaporating droplet. , 2020, 15, e0231352.		0
14	Mesoscopic Architectures Made of Electrically Charged Binary Colloidal Nanosheets in Aqueous System. Langmuir, 2019, 35, 14543-14552.	3.5	8
15	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
16	Step Response Characteristics of Anisotropic Gel Actuator Hybridized with Nanosheet Liquid Crystal. Journal of Robotics and Mechatronics, 2019, 31, 647-656.	1.0	1
17	Anisotropic Self-Oscillating Reaction in Liquid Crystalline Nanosheet Hydrogels. Journal of Physical Chemistry B, 2018, 122, 2957-2961.	2.6	8
18	Swelling Inhibition of Liquid Crystalline Colloidal Montmorillonite and Beidellite Clays by DNA. Scientific Reports, 2018, 8, 4367.	3.3	13

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19	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
20	Understanding Deformation Motion of Colloidal Nanosheets from CLSM Images using Deep Learning-based Approach. , 2018, , .		1
21	Preparation of Ultraviolet Curing Type Silicone Rubbers Containing Mesoporous Silica Fillers. Journal of Nanoscience and Nanotechnology, 2018, 18, 86-89.	0.9	4
22	Liquid Crystalline Colloidal Mixture of Nanosheets and Rods with Dynamically Variable Length. ACS Omega, 2018, 3, 14869-14874.	3.5	7
23	(Invited) Anisotropic Self-Oscillating Reaction in Liquid Crystalline Nanosheets Hydrogels. ECS Meeting Abstracts, 2018, , .	0.0	0
24	Hydrogel Filled with Monodisperse Mesoporous Silica. ECS Meeting Abstracts, 2018, , .	0.0	0
25	A facile low-temperature synthesis of V2O5 flakes for electrochemical detection of hydrogen peroxide sensor. Ionics, 2017, 23, 2193-2200.	2.4	15
26	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
27	Lignocellulosic biomass-derived, graphene sheet-like porous activated carbon for electrochemical supercapacitor and catechin sensing. RSC Advances, 2017, 7, 45668-45675.	3.6	95
28	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
29	Synthesis of an electronically conductive hydrogel from a hydrogelator and a conducting polymer. New Journal of Chemistry, 2017, 41, 9602-9606.	2.8	11
30	NiCo2O4-decorated porous carbon nanosheets for high-performance supercapacitors. Electrochimica Acta, 2017, 247, 288-295.	5.2	59
31	A Facile Synthesis of Cd(OH)₂â€rGO Nanocomposites for the Practical Electrochemical Detection of Acetaminophen. Electroanalysis, 2017, 29, 280-286.	2.9	15
32	New composite thixotropic hydrogel composed of a polymer hydrogelator and a nanosheet. Royal Society Open Science, 2017, 4, 171117.	2.4	7
33	Functional Layered Compounds forÂNanoarchitectonics. , 2017, , 173-192.		4
34	Colloidal Nanosheets. Nanostructure Science and Technology, 2017, , 201-260.	0.1	5
35	A facile electrochemical synthesis strategy for Cu₂O (cubes, sheets and flowers) microstructured materials for sensitive detection of 4-nitrophenol. Analytical Methods, 2016, 8, 5906-5910.	2.7	21
36	Inorganic nanosheet liquid crystals and their applications (Conference Presentation). , 2016, , .		0

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37	Functional porous carbonâ€“ZnO nanocomposites for high-performance biosensors and energy storage applications. Physical Chemistry Chemical Physics, 2016, 18, 16466-16475.	2.8	78
38	Synthesis of Anisotropic Poly(<I>N</I>-isorpopylacrylamide)/Inorganic-Nanosheets Composite Gels by <I>Î³</I>-Radiation-Induced Polymerization and Crosslinking. Journal of Nanoscience and Nanotechnology, 2016, 16, 9231-9237.	0.9	1
39	A Belousov-Zhabotinsky Oscillator Driven by a Water-Soluble Metalloporphyrin. ChemistrySelect, 2016, 1, 877-878.	1.5	0
40	Inorganic Nanosheet Liquid Crystals: Self-Assembled Structures in Dispersions of Two-Dimensional Inorganic Polymers. Kobunshi Ronbunshu, 2016, 73, 262-280.	0.2	1
41	Low-Temperature Chemical Synthesis of CoWO₄ Nanospheres for Sensitive Nonenzymatic Glucose Sensor. Journal of Physical Chemistry C, 2016, 120, 17024-17028.	3.1	69
42	Thermo-responsive hydrogels containing mesoporous silica toward controlled and sustainable releases. Materials Letters, 2016, 168, 176-179.	2.6	23
43	Sandwich organization of non-ionic surfactant liquid crystalline phases as induced by large inorganic K₄Nb₆O₁₇ nanosheets. Chemical Communications, 2016, 52, 1594-1597.	4.1	12
44	Perspective: Recent Developments in Hybrid Hydrogels Containing Inorganic Nanomaterials. Nanoscience and Nanotechnology Letters, 2016, 8, 355-359.	0.4	7
45	RÃ¼cktitelbild: 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
46	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
47	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
48	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
49	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
50	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
51	Macromol. Rapid Commun. 20/2014. Macromolecular Rapid Communications, 2014, 35, 1812-1812.	3.9	1
52	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
53	Mesoporous Silica Particles as Topologically Crosslinking Fillers for Poly(Nâ€isopropylacrylamide) Hydrogels. Chemistry - A European Journal, 2014, 20, 14955-14958.	3.3	16
54	Photoâ€Induced Anomalous Deformation of Poly(Nâ€isopropylacrylamide) Gel Hybridized with an Inorganic Nanosheet Liquid Crystal Aligned by Electric Field. Macromolecular Rapid Communications, 2014, 35, 1741-1746.	3.9	65

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55	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
56	A new composite thixotropic hydrogel composed of a low-molecular-weight hydrogelator and a nanosheet. RSC Advances, 2014, 4, 44837-44840.	3.6	14
57	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
58	Unusually stable ~100-fold reversible and instantaneous swelling of inorganic layered materials. Nature Communications, 2013, 4, 1632.	12.8	119
59	Mesoporous Metallic Cells: Design of Uniformly Sized Hollow Mesoporous Ptâ€“Ru Particles with Tunable Shell Thicknesses. Small, 2013, 9, 1047-1051.	10.0	159
60	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
61	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
62	Liquid Crystalline Inorganic Nanosheet Colloids Derived From Layered Materials. Israel Journal of Chemistry, 2012, 52, 881-894.	2.3	68
63	Unusual reinforcement of silicone rubber compounds containing mesoporous silica particles as inorganic fillers. Physical Chemistry Chemical Physics, 2012, 14, 3400.	2.8	42
64	Synthesis of Mesoporous Pt Films with Tunable Pore Sizes from Aqueous Surfactant Solutions. Chemistry of Materials, 2012, 24, 1591-1598.	6.7	164
65	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
66	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
67	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
68	Exfoliated Nanosheets of Layered Perovskite KCa₂Nb₃O₁₀ as an Inorganic Liquid Crystal. Chemistry - an Asian Journal, 2011, 6, 2936-2939.	3.3	23
69	Highly Photoactive Porous Anatase Films Obtained by Deformation of 3D Mesostructures. Chemistry - A European Journal, 2011, 17, 4005-4011.	3.3	36
70	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
71	Condensationâ€•and Crystallinityâ€Controlled Synthesis of Titanium Oxide Films with Assessed Mesopores. Chemistry - A European Journal, 2010, 16, 12069-12073.	3.3	27
72	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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73	Combined SANS, SEC, NMR, and UVâˆ'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
74	Rapid Fabrication of Mesoporous Titania Films with Controlled Macroporosity to Improve Photocatalytic Property. Chemistry - an Asian Journal, 2009, 4, 1486-1493.	3.3	44
75	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
76	Combined SANS, SEC, NMR, and UVâˆ'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
77	Liquid Crystalline Behavior and Related Properties of Colloidal Systems of Inorganic Oxide Nanosheets. Materials, 2009, 2, 1734-1761.	2.9	57
78	Lamellar Mesostructured Aluminum Organophosphonate with Unique Crystalline Framework. Chemistry Letters, 2009, 38, 916-917.	1.3	14
79	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
80	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
81	Living anionic polymerization of methyl methacrylate controlled by metal-free phosphazene catalyst as observed by small-angle neutron scattering, gel-permeation chromatography and UVâ€"visible spectroscopy. Journal of Applied Crystallography, 2007, 40, s568-s572.	4.5	4
82	Hierarchical structure of niobate nanosheets in aqueous solution. Journal of Applied Crystallography, 2007, 40, s101-s105.	4.5	22
83	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
84	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
85	Stable Liquid Crystalline Phases of Colloidally Dispersed Exfoliated Layered Niobates.. ChemInform, 2004, 35, no.	0.0	0
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	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
88	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
89	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
90	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

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91	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
92	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
93	Intercalation of a cationic azobenzene into montmorillonite. Applied Clay Science, 2003, 22, 179-185.	5.2	62
94	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, 2002, 12, 3463-3468.	6.7	24
95	Solâ€"gel transition of nanosheet colloids of layered niobate K4Nb6O17. Journal of Materials Chemistry, 2002, 12, 1245-1246.	6.7	32
96	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
97	Liquid Crystalline Nature of K4Nb6O17 Nanosheet Sols and Their Macroscopic Alignment. Advanced Materials, 2002, 14, 1267-1270.	21.0	103
98	Intercalation of a cationic cyanine dye into the layer silicate magadiite. Applied Clay Science, 2001, 19, 39-46.	5.2	38
99	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
100	Photocontrol of the Basal Spacing of Azobenzeneâ€"Magadiite Intercalation Compound. Advanced Materials, 2001, 13, 1107-1109.	21.0	83
101	Adsorption and aggregation of a cationic cyanine dye on layered clay minerals. Applied Clay Science, 2000, 16, 161-170.	5.2	103
102	Aggregation of a Cationic Cyanine Dye Intercalated in the Interlayer Space of a Layered Titanate Na₂Ti₃O₇. Molecular Crystals and Liquid Crystals, 2000, 341, 259-264.	0.3	10
103	Synthesis of Photocatalytic Niobate Nanosheet/Polymer Composite Microgel Particles through Microfluidic Approach. Key Engineering Materials, 0, 804, 75-82.	0.4	2
104	Detecting Nanosheet Objects from Noisy CLSM Images Using Deep Learning Approach. Key Engineering Materials, 0, 804, 11-15.	0.4	1
105	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