Masafumi Yoshio

List of Publications by Citations

97 papers	5,078 citations	38 h-index	70 g-index
103 ext. papers	5,468 ext. citations	8.7 avg, IF	5.52 L-index

#	Paper	IF	Citations
97	One-dimensional ion transport in self-organized columnar ionic liquids. *Journal of the American Chemical Society*, **2004**, 126, 994-5	16.4	409
96	One-dimensional ion-conductive polymer films: alignment and fixation of ionic channels formed by self-organization of polymerizable columnar liquid crystals. *Journal of the American Chemical Society*, **2006**, 128, 5570-7	16.4	363
95	Self-assembly of functional columnar liquid crystals. *Chemical Communications*, **2009**, 729-39	5.8	278
94	Transport of ions and electrons in nanostructured liquid crystals. *Nature Reviews Materials*, **2017**, 2,	73.3	256
93	Self-organization of room-temperature ionic liquids exhibiting liquid-crystalline bicontinuous cubic phases: formation of nano-ion channel networks. *Journal of the American Chemical Society*, **2007**, 129, 10662-3	16.4	229
92	Layered Ionic Liquids: Anisotropic Ion Conduction in New Self-Organized Liquid-Crystalline Materials. *Advanced Materials*, **2002**, 14, 351	24	196
91	Noncovalent approach to one-dimensional ion conductors: enhancement of ionic conductivities in nanostructured columnar liquid crystals. *Journal of the American Chemical Society*, **2008**, 130, 1759-65	16.4	169
90	3D interconnected ionic nano-channels formed in polymer films: self-organization and polymerization of thermotropic bicontinuous cubic liquid crystals. *Journal of the American Chemical Society*, **2011**, 133, 2163-9	16.4	146
89	Induction of thermotropic bicontinuous cubic phases in liquid-crystalline ammonium and phosphonium salts. *Journal of the American Chemical Society*, **2012**, 134, 2634-43	16.4	133
88	Self-organized liquid-crystalline nanostructured membranes for water treatment: selective permeation of ions. *Advanced Materials*, **2012**, 24, 2238-41	24	129
87	Nanostructured anisotropic ion-conductive films. *Journal of the American Chemical Society*, **2003**, 125, 3196-7	16.4	129
86	Nanostructured ion-conductive films: Layered assembly of a side-chain liquid-crystalline polymer with an imidazolium ionic moiety. *Journal of Polymer Science Part A*, **2003**, 41, 3486-3492	2.5	117
85	3D Anhydrous proton-transporting nanochannels formed by self-assembly of liquid crystals composed of a sulfobetaine and a sulfonic acid. *Journal of the American Chemical Society*, **2013**, 135, 15286-9	16.4	112
84	Macroscopic photocontrol of ion-transporting pathways of a nanostructured imidazolium-based photoresponsive liquid crystal. *Journal of the American Chemical Society*, **2014**, 136, 9552-5	16.4	102
83	Columnar Liquid-Crystalline Imidazolium Salts. Effects of Anions and Cations on Mesomorphic Properties and Ionic Conductivities. *Bulletin of the Chemical Society of Japan*, **2007**, 80, 1836-1841	5.1	98
82	Macroscopically ordered polymer/CaCO3 hybrids prepared by using a liquid-crystalline template. *Angewandte Chemie - International Edition*, **2008**, 47, 2800-3	16.4	83
81	Viologen-based redox-active ionic liquid crystals forming columnar phases. *Organic Letters*, **2007**, 9, 4271-4	6.2	81

80	Liquid-Crystalline Electrolytes for Lithium-Ion Batteries: Ordered Assemblies of a Mesogen-Containing Carbonate and a Lithium Salt. *Advanced Functional Materials*, **2015**, 25, 1206-1212	15.6	78
79	A planarized triphenylborane mesogen: discotic liquid crystals with ambipolar charge-carrier transport properties. *Angewandte Chemie - International Edition*, **2015**, 54, 6922-5	16.4	77
78	Electric-Field-Responsive Lithium-Ion Conductors of Propylenecarbonate-Based Columnar Liquid Crystals. *Advanced Materials*, **2009**, 21, 1591-1594	24	76
77	Self-Assembled Amphiphilic Diketopyrrolopyrrole-Based Oligothiophenes for Field-Effect Transistors and Solar Cells. *Chemistry of Materials*, **2011**, 23, 2285-2288	9.6	73
76	Functional Liquid-Crystalline Polymers for Ionic and Electronic Conduction **2007**, 151-179		68
75	Electric field-assisted alignment of self-assembled fibers composed of hydrogen-bonded molecules having laterally fluorinated mesogens. *Journal of the American Chemical Society*, **2009**, 131, 6763-7	16.4	67
74	Liquid-Crystalline Assemblies Containing Ionic Liquids: An Approach to Anisotropic Ionic Materials. *Chemistry Letters*, **2002**, 31, 320-321	1.7	66
73	Anisotropic ion conduction in a unique smectic phase of self-assembled amphiphilic ionic liquids. *Chemical Communications*, **2005**, 1333-5	5.8	64
72	m x n stacks of discrete aromatic stacks in solution. *Journal of the American Chemical Society*, **2010**, 132, 9555-7	16.4	61
71	Self-Assembly of Giant Spherical Liquid-Crystalline Complexes and Formation of Nanostructured Dynamic Gels that Exhibit Self-Healing Properties. *Angewandte Chemie - International Edition*, **2017**, 56, 14085-14089	16.4	60
70	Ionic Switch Induced by a Rectangular-Hexagonal Phase Transition in Benzenammonium Columnar Liquid Crystals. *Journal of the American Chemical Society*, **2015**, 137, 13212-5	16.4	57
69	Mechanoresponsive liquid crystals exhibiting reversible luminescent color changes at ambient temperature. *Journal of Materials Chemistry C*, **2016**, 4, 2752-2760	7.1	56
68	Nanostructured Two-Component Liquid-Crystalline Electrolytes for High-Temperature Dye-Sensitized Solar Cells. *Chemistry of Materials*, **2014**, 26, 6496-6502	9.6	56
67	Liquid-Crystalline Dye-Sensitized Solar Cells: Design of Two-Dimensional Molecular Assemblies for Efficient Ion Transport and Thermal Stability. *Chemistry of Materials*, **2016**, 28, 6493-6500	9.6	55
66	Development of Nanostructured Water Treatment Membranes Based on Thermotropic Liquid Crystals: Molecular Design of Sub-Nanoporous Materials. *Advanced Science*, **2018**, 5, 1700405	13.6	54
65	Effect of Methyl Groups onto Imidazolium Cation Ring on Liquid Crystallinity and Ionic Conductivity of Amphiphilic Ionic Liquids. *Chemistry Letters*, **2004**, 33, 1630-1631	1.7	52
64	Ion conductive behaviour in a confined nanostructure: NMR observation of self-diffusion in a liquid-crystalline bicontinuous cubic phase. *Chemical Communications*, **2010**, 46, 728-30	5.8	50
63	Zwitterionic liquid crystals as 1D and 3D lithium ion transport media. *Journal of Materials Chemistry A*, **2015**, 3, 11232-11238	13	49

62	Ionic Liquid Crystals: Self-assembly of Imidazolium Salts Containing an L-Glutamic Acid Moiety. *Chemistry Letters*, **2008**, 37, 538-539	1.7	49
61	SELF-ASSEMBLY OF AN IONIC LIQUID AND A HYDROXYL-TERMINATED LIQUID CRYSTAL: ANISOTROPIC ION CONDUCTION IN LAYERED NANOSTRUCTURES. *Molecular Crystals and Liquid Crystals*, **2004**, 413, 99-108	0.5	46
60	Co-organisation of ionic liquids with amphiphilic diethanolamines: construction of 3D continuous ionic nanochannels through the induction of liquid-crystalline bicontinuous cubic phases. *Chemical Science*, **2012**, 3, 2001	9.4	41
59	Alignment of photoconductive self-assembled fibers composed of π-conjugated molecules under electric fields. *Journal of Materials Chemistry*, **2010**, 20, 173-179		34
58	Designer lyotropic liquid-crystalline systems containing amino acid ionic liquids as self-organisation media of amphiphiles. *Chemical Communications*, **2013**, 49, 11746-8	5.8	33
57	Uniaxially Parallel Alignment of a Smectic A Liquid-Crystalline Rod-Coil Molecule and Its Lithium Salt Complexes Using Rubbed Polyimides. *Macromolecules*, **2007**, 40, 4874-4878	5.5	33
56	Columnar liquid-crystalline assemblies of X-shaped pyrene-oligothiophene conjugates: photoconductivities and mechanochromic functions. *Journal of Materials Chemistry C*, **2016**, 4, 5073-5080	7.1	33
55	2D assemblies of ionic liquid crystals based on imidazolium moieties: formation of ion-conductive layers. *New Journal of Chemistry*, **2015**, 39, 4471-4477	3.6	32
54	Bisphenylsulfone-based molecular assemblies: polar columnar liquid crystals aligned in electric fields and fibrous aggregates in organic solvents. *New Journal of Chemistry*, **2013**, 37, 143-147	3.6	29
53	Supramolecular approach to the formation of magneto-active physical gels. *Chemical Science*, **2012**, 3, 3007	9.4	29
52	A columnar liquid-crystalline shape-persistent macrocycle having a nanosegregated structure. *Organic and Biomolecular Chemistry*, **2009**, 7, 3205-7	3.9	29
51	A Planarized Triphenylborane Mesogen: Discotic Liquid Crystals with Ambipolar Charge-Carrier Transport Properties. *Angewandte Chemie*, **2015**, 127, 7026-7029	3.6	28
50	Spiropyran-based liquid crystals: the formation of columnar phases via acid-induced spiro-merocyanine isomerisation. *Chemical Communications*, **2006**, 4703-5	5.8	23
49	Nanostructured Virus Filtration Membranes Based on Two-Component Columnar Liquid Crystals. *ACS Macro Letters*, **2019**, 8, 24-30	6.6	23
48	Polymerizable Photocleavable Columnar Liquid Crystals for Nanoporous Water Treatment Membranes. *ACS Macro Letters*, **2019**, 8, 1303-1308	6.6	21
47	Guanine-oligothiophene conjugates: liquid-crystalline properties, photoconductivities and ion-responsive emission of their nanoscale assemblies. *Chemical Science*, **2018**, 9, 576-585	9.4	20
46	Liquid-crystalline gels exhibiting electrooptical light scattering properties: fibrous polymerized network of a lysine-based gelator having acrylate moieties. *Polymer Journal*, **2012**, 44, 594-599	2.7	20
45	Ionic diffusion and salt dissociation conditions of lithium liquid crystal electrolytes. *Journal of Physical Chemistry B*, **2005**, 109, 11563-71	3.4	20

44	Use of a protic salt for the formation of liquid-crystalline proton-conductive complexes with mesomorphic diols. *Journal of Materials Chemistry A*, **2015**, 3, 22656-22662	13	19
43	Noncovalent Approach to Liquid-Crystalline Ion Conductors: High-Rate Performances and Room-Temperature Operation for Li-Ion Batteries. *ACS Omega*, **2018**, 3, 159-166	3.9	19
42	A Comprehensive Study on Lyotropic Liquid-Crystalline Behavior of an Amphiphile in 20 Kinds of Amino Acid Ionic Liquids. *Chemistry - an Asian Journal*, **2016**, 11, 520-6	4.5	19
41	Self-organization of Protonated 2-heptadecylimidazole as an Effective Ion Conductive Matrix. *Electrochemistry*, **2005**, 73, 623-626	1.2	19
40	Columnar nanostructured polymer films containing ionic liquids in supramolecular one-dimensional nanochannels. *Journal of Polymer Science Part A*, **2015**, 53, 366-371	2.5	17
39	Self-Assembly of Giant Spherical Liquid-Crystalline Complexes and Formation of Nanostructured Dynamic Gels that Exhibit Self-Healing Properties. *Angewandte Chemie*, **2017**, 129, 14273-14277	3.6	16
38	Induction of columnar and smectic phases for spiropyran derivatives: effects of acidichromism and photochromism. *Chemistry - an Asian Journal*, **2008**, 3, 534-541	4.5	16
37	Self-assembledN-Alkylimidazolium Perfluorooctanesulfonates. *Chemistry Letters*, **2005**, 34, 442-443	1.7	16
36	Mechanochromic Photoluminescent Liquid Crystals Containing 5,5?-Bis(2-phenylethynyl)-2,2?-bithiophene. *Molecular Crystals and Liquid Crystals*, **2014**, 594, 112-121	0.5	14
35	Self-Assembled Fibers Containing Stable Organic Radical Moieties: Alignment and Magnetic Properties in Liquid Crystals. *Chemistry - A European Journal*, **2016**, 22, 8872-8	4.8	14
34	Self-Assembled Liquid-Crystalline Ion Conductors in Dye-Sensitized Solar Cells: Effects of Molecular Sensitizers on Their Performance. *ChemPlusChem*, **2017**, 82, 834-840	2.8	13
33	Induction of bicontinuous cubic liquid-crystalline assemblies for polymerizable amphiphiles via tailor-made design of ionic liquids. *Chemical Communications*, **2016**, 52, 13861-13864	5.8	13
32	Columnar Liquid Crystalline Imidazolium Salts: Self-Organized One-Dimensional Ion Conductors. *ACS Symposium Series*, **2007**, 161-171	0.4	13
31	Macroscopically Ordered Polymer/CaCO3 Hybrids Prepared by Using a Liquid-Crystalline Template. *Angewandte Chemie*, **2008**, 120, 2842-2845	3.6	12
30	Liquid Crystalline Ionic Liquids **2005**, 307-320		12
29	Multi-Color Photoluminescence Based on Mechanically and Thermally Induced Liquid-Crystalline Phase Transitions of a Hydrogen-Bonded Benzodithiophene Derivative. *ChemPhysChem*, **2020**, 21, 328-334	3.2	12
28	Tuning of luminescence color of π-conjugated liquid crystals through co-assembly with ionic liquids. *Journal of Materials Chemistry C*, **2017**, 5, 9972-9978	7.1	11
27	1-alkyl-2,3,5,6,7,8-hexasilabicyclo[2.2.2]octanes: unconventional class of mesomorphic columnar compounds. *Angewandte Chemie - International Edition*, **2007**, 46, 3055-8	16.4	11

26	Self-assembly of liquid crystalline triphenylene–oligo(ethylene oxide)–triphenylene molecules and their complexes with lithium triflate. *Liquid Crystals*, **2007**, 34, 107-112	2.3	11
25	Liquid-crystalline stereoregular polyketone prepared from a mesogenic vinylarene and carbon monoxide. *Journal of Polymer Science Part A*, **2003**, 41, 3556-3563	2.5	11
24	Design of Dication-Type Amino Acid Ionic Liquids and Their Application to Self-Assembly Media of Amphiphiles. *Bulletin of the Chemical Society of Japan*, **2018**, 91, 1-5	5.1	10
23	Redox-active Supramolecular Fibers of a Nitronyl Nitroxide-based Gelator. *Chemistry Letters*, **2016**, 45, 863-865	1.7	8
22	Functional Soft Materials: Nanostructured Liquid Crystals and Self-Assembled Fibrous Aggregates. *Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry*, **2010**, 68, 1169-1174	0.2	8
21	Self-healing and shape memory functions exhibited by supramolecular liquid-crystalline networks formed by combination of hydrogen bonding interactions and coordination bonding. *Chemical Science*, **2021**, 12, 6091-6098	9.4	8
20	One-dimensional supramolecular hybrids: self-assembled nanofibrous materials based on a sugar gelator and calcite developed along an unusual axis. *CrystEngComm*, **2017**, 19, 1580-1584	3.3	7
19	Development of functional nanoporous membranes based on photocleavable columnar liquid crystals – selective adsorption of ionic dyes. *European Polymer Journal*, **2020**, 134, 109859	5.2	7
18	Columnar liquid-crystalline assemblies composed of spiropyran derivatives and sulfonic acids. *Polymers for Advanced Technologies*, **2008**, 19, 1362-1368	3.2	7
17	Enthalpy Relaxation Behavior of Liquid-Crystalline Glasses of an Esterified Cholesterol Derivative and its Complex Salts with Aliphatic Amines. *Molecular Crystals and Liquid Crystals*, **2001**, 357, 27-42		7
16	Liquid Crystalline Ionic Liquids375-392		7
15	Self-Assembled Liquid-Crystalline Ion Conductors: Odd-Even Effects of Flexible Spacers Binding a Carbonate Moiety and an Aliphatic Rod-Like Core on Phase Transition Properties and Ion Conductivities. *Bulletin of the Chemical Society of Japan*, **2019**, 92, 1226-1233	5.1	6
14	Switching of ionic conductivities in columnar liquid-crystalline anilinium salts: effects of alkyl chains, ammonium cations and counter anions on thermal properties and switching temperatures. *Molecular Systems Design and Engineering*, **2019**, 4, 342-347	4.6	5
13	Ferroelectric Liquid-Crystalline Binary Mixtures Based on Achiral and Chiral Trifluoromethylphenylterthiophenes. *ACS Applied Materials & Interfaces*, **2020**, 12, 53029-53038	9.5	5
12	Liquid Crystals: Liquid-Crystalline Electrolytes for Lithium-Ion Batteries: Ordered Assemblies of a Mesogen-Containing Carbonate and a Lithium Salt (Adv. Funct. Mater. 8/2015). *Advanced Functional Materials*, **2015**, 25, 1205-1205	15.6	2
11	Liquid-crystalline behavior and ion transport properties of block-structured molecules containing a perfluorinated ethylene oxide moiety complexed with a lithium salt. *Polymer Journal*, **2018**, 50, 889-898	2.7	2
10	Low-Voltage-Driven Actuators Using Photo-Cross-Linked Ionic Columnar Liquid-Crystalline Polymer Films **2022**, 4, 153-158		2
9	Ion-Conductive Nanostructured Polymer Films Formed by Photopolymerization of Lyotropic Columnar Liquid-Crystalline Monomers, Composed of a Zwitterionic Compound and a Protic Ionic Liquid. *Crystals*, **2020**, 10, 276	2.3	1

8	Liquid Crystals: Self-Organized Liquid-Crystalline Nanostructured Membranes for Water Treatment: Selective Permeation of Ions (Adv. Mater. 17/2012). *Advanced Materials*, **2012**, 24, 2218-2218	24	1
7	Liquid-Crystalline Formation and Functionalization of Ionic Liquids through Self-Organization Processes. *Hyomen Kagaku*, **2007**, 28, 318-321		1
6	Liquid Crystals as Ion Conductors **2014**, 1-23		
5	Development of Gyroid Structures through the Design of Self-organizing Ionic Liquids and Their Application. *Nihon Kessho Gakkaishi*, **2015**, 57, 184-190	0	
4	The Influence of Hydrogen Bonding on Generation and Stabilization of Self-Assembled Layer Structure of 6-[4-(Trans -4-pentylcyclohexyl)phenoxy]hexane-1,2-diol. *Molecular Crystals and Liquid Crystals*, **2008**, 490, 43-51	0.5	
3	1-Alkyl-2,3,5,6,7,8-hexasilabicyclo[2.2.2]octanes: Unconventional Class of Mesomorphic Columnar Compounds. *Angewandte Chemie*, **2007**, 119, 3115-3118	3.6	
2	Oxidation-degree-dependent moisture-induced actuation of a graphene oxide film.. *RSC Advances*, **2022**, 12, 3372-3379	3.7	
1	Function of Liquid Crystals **2014**, 357-410		