Louis A Madsen

List of Publications by Year
in descending order

70	2,347	172457	223800
papers	citations	29 h-index	46 g-index

71	71	71	3000
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Linear coupling of alignment with transport in a polymer electrolyte membrane. Nature Materials, 2011, 10, 507-511.	27.5	144
2	Solid-state rigid-rod polymer composite electrolytes with nanocrystalline lithium ion pathways. Nature Materials, 2021, 20, 1255-1263.	27.5	110
3	Sulfonimide-Containing Triblock Copolymers for Improved Conductivity and Mechanical Performance. Macromolecules, 2015, 48, 4520-4528.	4.8	103
4	Polymer beacons for luminescence and magnetic resonance imaging of DNA delivery. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16913-16918.	7.1	90
5	Cation/Anion Associations in Ionic Liquids Modulated by Hydration and Ionic Medium. Journal of Physical Chemistry B, 2011, 115, 4576-4582.	2.6	89
6	Confined Interlayer Water Promotes Structural Stability for High-Rate Electrochemical Proton Intercalation in Tungsten Oxide Hydrates. ACS Energy Letters, 2019, 4, 2805-2812.	17.4	88
7	Oriented Morphology and Anisotropic Transport in Uniaxially Stretched Perfluorosulfonate Ionomer Membranes. Macromolecules, 2011, 44, 5701-5710.	4.8	82
8	Anisotropic Diffusion and Morphology in Perfluorosulfonate Ionomers Investigated by NMR. Macromolecules, 2009, 42, 255-262.	4.8	77
9	A New Interleukin-13 Amino-Coated Gadolinium Metallofullerene Nanoparticle for Targeted MRI Detection of Glioblastoma Tumor Cells. Journal of the American Chemical Society, 2015, 137, 7881-7888.	13.7	76
10	Sulfonated Poly(arylene sulfide sulfone nitrile) Multiblock Copolymers with Ordered Morphology for Proton Exchange Membranes. Macromolecules, 2013, 46, 7797-7804.	4.8	75
11	Highly Conductive and Thermally Stable Ion Gels with Tunable Anisotropy and Modulus. Advanced Materials, 2016, 28, 2571-2578.	21.0	70
12	Gd₃N@C₈₄(OH)_x: A New Egg-Shaped Metallofullerene Magnetic Resonance Imaging Contrast Agent. Journal of the American Chemical Society, 2014, 136, 2630-2636.	13.7	67
13	Ion transport and storage of ionic liquids in ionic polymer conductor network composites. Applied Physics Letters, 2010, 96, .	3.3	66
14	Anisotropy and Transport in Poly(arylene ether sulfone) Hydrophilicâ˜Hydrophobic Block Copolymers. Macromolecules, 2010, 43, 347-353.	4.8	64
15	Observation of separate cation and anion electrophoretic mobilities in pure ionic liquids. Journal of Chemical Physics, 2014, 140, 084204.	3.0	62
16	Uniaxial to biaxial nematic phase transition in a bent-core thermotropic liquid crystal by polarising microscopy. Liquid Crystals, 2012, 39, 19-23.	2.2	60
17	Hydroxyalkyl-Containing Imidazolium Homopolymers: Correlation of Structure with Conductivity. Macromolecules, 2013, 46, 3037-3045.	4.8	52
18	Correlating morphology, proton conductivity, and water transport in polyelectrolyte-fluoropolymer blend membranes. Journal of Membrane Science, 2013, 448, 292-299.	8.2	43

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19	Disulfonated Poly(arylene ether sulfone) Random Copolymer Blends Tuned for Rapid Water Permeation via Cation Complexation with Poly(ethylene glycol) Oligomers. Chemistry of Materials, 2011, 23, 1039-1049.	6.7	39
20	Anisotropic Ion Diffusion and Electrochemically Driven Transport in Nanostructured Block Copolymer Electrolytes. Journal of Physical Chemistry B, 2018, 122, 1537-1544.	2.6	39
21	Conformational Dynamics in an Organic Ionic Plastic Crystal. Journal of Physical Chemistry B, 2017, 121, 5439-5446.	2.6	38
22	The biaxial nematic phase of oxadiazole biphenol mesogens. Liquid Crystals, 2013, 40, 1655-1677.	2.2	36
23	Double helical conformation and extreme rigidity in a rodlike polyelectrolyte. Nature Communications, 2019, 10, 801.	12.8	36
24	Room Temperature to 150 Â°C Lithium Metal Batteries Enabled by a Rigid Molecular Ionic Composite Electrolyte. Advanced Energy Materials, 2021, 11, 2003559.	19.5	35
25	Multiscale Tortuous Diffusion in Anion and Cation Exchange Membranes. Macromolecules, 2019, 52, 24-35.	4.8	34
26	Force-detected magnetic resonance without field gradients. Solid State Nuclear Magnetic Resonance, 1998, 11, 73-86.	2.3	33
27	Hydrophilic Channel Alignment Modes in Perfluorosulfonate Ionomers: Implications for Proton Transport. Macromolecules, 2008, 41, 4555-4557.	4.8	33
28	Anisotropic MRI Contrast Reveals Enhanced Ionic Transport in Plastic Crystals. Journal of the American Chemical Society, 2014, 136, 15638-15645.	13.7	31
29	Multiscale Lithium and Counterion Transport in an Electrospun Polymer-Gel Electrolyte. Macromolecules, 2015, 48, 4481-4490.	4.8	31
30	Molecular Alignment and Ion Transport in Rigid Rod Polyelectrolyte Solutions. Macromolecules, 2014, 47, 2984-2992.	4.8	30
31	Strong graphene oxide nanocomposites from aqueous hybrid liquid crystals. Nature Communications, 2020, 11, 830.	12.8	30
32	Water and sodium transport and liquid crystalline alignment in a sulfonated aramid membrane. Journal of Membrane Science, 2015, 489, 194-203.	8.2	29
33	Unraveling the local energetics of transport in a polymer ion conductor. Chemical Communications, 2013, 49, 4283.	4.1	28
34	Humidity-Modulated Phase Control and Nanoscopic Transport in Supramolecular Assemblies. Journal of Physical Chemistry B, 2014, 118, 3207-3217.	2.6	28
35	Insights into the reversible oxygen reduction reaction in a series of phosphonium-based ionic liquids. Physical Chemistry Chemical Physics, 2014, 16, 25062-25070.	2.8	27
36	Cation and Anion Transport in a Dicationic Imidazolium-Based Plastic Crystal Ion Conductor. Journal of Physical Chemistry B, 2014, 118, 140218100421006.	2.6	26

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37	Influence of Rubbery versus Glassy Backbone Dynamics on Multiscale Transport in Polymer Membranes. Macromolecules, 2018, 51, 9222-9233.	4.8	22
38	Ion Transport and Mechanical Properties of Non-Crystallizable Molecular Ionic Composite Electrolytes. Macromolecules, 2020, 53, 1405-1414.	4.8	22
39	Plasticization of Poly(ethylene oxide) in Fluid CO2Measured by in-Situ NMR. Macromolecules, 2006, 39, 1483-1487.	4.8	20
40	Rheo-NMR of Wormlike Micelles Formed from Nonionic Pluronic Surfactants. Macromolecules, 2008, 41, 804-814.	4.8	20
41	Polymerized ionic liquids: Effects of counterâ€anions on ion conduction and polymerization kinetics. Journal of Polymer Science Part A, 2018, 56, 1346-1357.	2.3	20
42	Molecular Structure and Dynamics of Ionic Liquids in a Rigid-Rod Polyanion-Based Ion Gel. Langmuir, 2017, 33, 322-331.	3.5	19
43	Tuning Biocompatible Block Copolymer Micelles by Varying Solvent Composition: Core/Corona Structure and Solvent Uptake. Macromolecules, 2017, 50, 4322-4334.	4.8	18
44	Nanofibrillar Ionic Polymer Composites Enable High-Modulus Ion-Conducting Membranes. ACS Applied Materials & Interfaces, 2019, 11, 40551-40563.	8.0	18
45	Diffusion of Drug Delivery Nanoparticles into Biogels Using Time-Resolved MicroMRI. Journal of Physical Chemistry Letters, 2014, 5, 3825-3830.	4.6	17
46	Relating Geometric Nanoconfinement and Local Molecular Environment to Diffusion in Ionic Polymer Membranes. Macromolecules, 2020, 53, 3296-3305.	4.8	16
47	Quantitation of Complexed versus Free Polymers in Interpolyelectrolyte Polyplex Formulations. ACS Macro Letters, 2013, 2, 1038-1041.	4.8	15
48	Addressing nonâ€idealities in NMR experiments on rotating liquid crystals. Liquid Crystals, 2005, 32, 1419-1425.	2.2	14
49	Tuning Biocompatible Block Copolymer Micelles by Varying Solvent Composition: Dynamics and Populations of Micelles and Unimers. Macromolecules, 2017, 50, 4335-4343.	4.8	14
50	Bottom-Up Fabrication of Nanostructured Bicontinuous and Hexagonal Ion-Conducting Polymer Membranes. Macromolecules, 2017, 50, 5392-5401.	4.8	12
51	Mapping Coexistence Phase Diagrams of Block Copolymer Micelles and Free Unimer Chains. Macromolecules, 2018, 51, 8127-8135.	4.8	11
52	Ionic interactions control the modulus and mechanical properties of molecular ionic composite electrolytes. Journal of Materials Chemistry C, 2022, 10, 947-957.	5.5	9
53	Probing Alignment and Phase Behavior in Intact Wood Cell Walls Using2H NMR Spectroscopy. Biomacromolecules, 2012, 13, 1043-1050.	5.4	8
54	New insights for accurate chemically specific measurements of slow diffusing molecules. Journal of Chemical Physics, 2013, 138, 054201.	3.0	8

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55	Quantifying Drug Cargo Partitioning in Block Copolymer Micelle Solutions. ACS Applied Polymer Materials, 2020, 2, 3749-3755.	4.4	8
56	Solvent-Cast Solid Electrolyte Membranes Based on a Charged Rigid-Rod Polymer and Ionic Liquids. ACS Applied Energy Materials, 2021, 4, 6599-6605.	5.1	7
57	The role of water in transport of ionic liquids in polymeric artificial muscle actuators. Soft Matter, 2009, , .	2.7	6
58	Switchable bistable ordering and real-time alignment dynamics in wormlike micelles. Soft Matter, 2012, 8, 57-60.	2.7	6
59	A theranostic polycation containing trehalose and lanthanide chelate domains for siRNA delivery and monitoring. RSC Advances, 2015, 5, 74102-74106.	3.6	6
60	Irreversible Shear-Activated Gelation of a Liquid Crystalline Polyelectrolyte. ACS Macro Letters, 2020, 9, 957-963.	4.8	6
61	Local Water Transport in Rubbery versus Glassy Separation Membranes and Analogous Solutions. Macromolecules, 2021, 54, 11187-11197.	4.8	6
62	Anisotropic viscoelasticity and molecular diffusion in nematic wormlike micelles. Liquid Crystals, 2018, 45, 844-856.	2.2	5
63	Photocatalyst-independent photoredox ring-opening polymerization of O-carboxyanhydrides: stereocontrol and mechanism. Chemical Science, 2021, 12, 3702-3712.	7.4	5
64	Prolonged Association between Water Molecules under Hydrophobic Nanoconfinement. Journal of Physical Chemistry B, 2021, 125, 13767-13777.	2.6	3
65	Strong Variation of Micelleâ€“Unimer Coexistence as a Function of Core Chain Mobility. Macromolecules, 2021, 54, 6975-6981.	4.8	2
66	Understanding Anisotropy, Transport, and Ion Associations Inside Ionic Polymers. ACS Symposium Series, 2011, , 251-263.	0.5	1
67	Detection of the Order-to-Disorder Transition in Block Copolymer Electrolytes Using Quadrupolar 7Li NMR Splitting. ACS Macro Letters, 2019, 8, 107-112.	4.8	1
68	Exploring ideality and reality in an archetypal rodlike nematic liquid crystal. Liquid Crystals, 2020, 47, 2027-2042.	2.2	1
69	Christine Elizabeth Kaestle: January 28, 1972 to July 16, 2020. Journal of Sex Research, 2021, 58, 914-914.	2.5	0
70	Room Temperature to 150 Â°C Lithium Metal Batteries Enabled By a â€œMolecular Ionic Compositeâ€•Solid Electrolyte. ECS Meeting Abstracts, 2020, MA2020-02, 964-964.	0.0	0