Michael L Chabinyc

List of Publications by Year
in descending order

117	11,330	53794 45	28297 105
papers	citations	h-index	g-index

119	119	119	11530
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Liquid-crystalline semiconducting polymers with high charge-carrier mobility. Nature Materials, 2006, 5, 328-333.	27.5	2,001
2	Organic thermoelectric materials for energy harvesting and temperature control. Nature Reviews Materials, 2016, 1, .	48.7	927
3	Interdiffusion of PCBM and P3HT Reveals Miscibility in a Photovoltaically Active Blend. Advanced Energy Materials, 2011, 1, 82-89.	19.5	572
4	Microstructural Characterization and Charge Transport in Thin Films of Conjugated Polymers. Advanced Materials, 2010, 22, 3812-3838.	21.0	464
5	Crystal and Electronic Structures of Complex Bismuth Iodides A₃Bi₂I₉ (A = K, Rb, Cs) Related to Perovskite: Aiding the Rational Design of Photovoltaics. Chemistry of Materials, 2015, 27, 7137-7148.	6.7	413
6	Semiconducting Thienothiophene Copolymers: Design, Synthesis, Morphology, and Performance in Thinâ€Film Organic Transistors. Advanced Materials, 2009, 21, 1091-1109.	21.0	412
7	X-ray Scattering Study of Thin Films of Poly(2,5-bis(3-alkylthiophen-2-yl)thieno[3,2-b]thiophene). Journal of the American Chemical Society, 2007, 129, 3226-3237.	13.7	351
8	Impact of the Doping Method on Conductivity and Thermopower in Semiconducting Polythiophenes. Advanced Energy Materials, 2015, 5, 1401072.	19.5	336
9	Solubilityâ€Limited Extrinsic nâ€Type Doping of a High Electron Mobility Polymer for Thermoelectric Applications. Advanced Materials, 2014, 26, 2825-2830.	21.0	328
10	Critical Role of Side-Chain Attachment Density on the Order and Device Performance of Polythiophenes. Macromolecules, 2007, 40, 7960-7965.	4.8	321
11	Morphology controls the thermoelectric power factor of a doped semiconducting polymer. Science Advances, 2017, 3, e1700434.	10.3	272
12	A practical field guide to thermoelectrics: Fundamentals, synthesis, and characterization. Applied Physics Reviews, 2018, 5, 021303.	11.3	223
13	Polymer-Fullerene Miscibility: A Metric for Screening New Materials for High-Performance Organic Solar Cells. Journal of the American Chemical Society, 2012, 134, 15869-15879.	13.7	196
14	Power Factor Enhancement in Solutionâ€Processed Organic nâ€Type Thermoelectrics Through Molecular Design. Advanced Materials, 2014, 26, 3473-3477.	21.0	196
15	Thermoelectric Properties of Poly(3-hexylthiophene) (P3HT) Doped with 2,3,5,6-Tetrafluoro-7,7,8,8-tetracyanoquinodimethane (F₄TCNQ) by Vapor-Phase Infiltration. Chemistry of Materials, 2018, 30, 998-1010.	6.7	190
16	Molecular Interactions and Ordering in Electrically Doped Polymers: Blends of PBTTT and F₄TCNQ. Macromolecules, 2014, 47, 6836-6846.	4.8	164
17	Recent progress in the morphology of bulk heterojunction photovoltaics. Soft Matter, 2011, 7, 11065.	2.7	147
18	Chemical and Structural Diversity of Hybrid Layered Double Perovskite Halides. Journal of the American Chemical Society, 2019, 141, 19099-19109.	13.7	144

#	Article	IF	Citations
19	Increasing the Thermoelectric Power Factor of a Semiconducting Polymer by Doping from the Vapor Phase. ACS Macro Letters, 2016, 5, 268-272.	4.8	133
20	Microstructure formation in molecular and polymer semiconductors assisted by nucleation agents. Nature Materials, 2013, 12, 628-633.	27.5	131
21	Remarkable Order of a High-Performance Polymer. Nano Letters, 2013, 13, 2522-2527.	9.1	120
22	Temperature-Dependent Polarization in Field-Effect Transport and Photovoltaic Measurements of Methylammonium Lead Iodide. Journal of Physical Chemistry Letters, 2015, 6, 3565-3571.	4.6	105
23	Varying the ionic functionalities of conjugated polyelectrolytes leads to both p- and n-type carbon nanotube composites for flexible thermoelectrics. Energy and Environmental Science, 2015, 8, 2341-2346.	30.8	102
24	The 2021 flexible and printed electronics roadmap. Flexible and Printed Electronics, 2021, 6, 023001.	2.7	100
25	Phase Separation in Bulk Heterojunctions of Semiconducting Polymers and Fullerenes for Photovoltaics. Annual Review of Physical Chemistry, 2014, 65, 59-81.	10.8	99
26	Ultralow thermal conductivity of fullerene derivatives. Physical Review B, 2013, 88, .	3.2	98
27	Charge-Carrier Dynamics and Crystalline Texture of Layered Ruddlesdenâ€“Popper Hybrid Lead Iodide Perovskite Thin Films. ACS Energy Letters, 2018, 3, 380-386.	17.4	97
28	Tethered tertiary amines as solid-state n-type dopants for solution-processable organic semiconductors. Chemical Science, 2016, 7, 1914-1919.	7.4	91
29	High-efficiency photovoltaic cells with wide optical band gap polymers based on fluorinated phenylene-alkoxybenzothiadiazole. Energy and Environmental Science, 2017, 10, 1443-1455.	30.8	84
30	Room temperature 3D printing of super-soft and solvent-free elastomers. Science Advances, 2020, 6, .	10.3	81
31	Seven-Layered 2D Hybrid Lead Iodide Perovskites. CheM, 2019, 5, 2593-2604.	11.7	79
32	Structural Characterization of Vapor-Deposited Glasses of an Organic Hole Transport Material with X-ray Scattering. Chemistry of Materials, 2015, 27, 3341-3348.	6.7	78
33	Solidâ€State Supramolecular Organization of Polythiophene Chains Containing Thienothiophene Units. Advanced Materials, 2009, 21, 1193-1198.	21.0	76
34	Xâ€Ray Scattering Reveals Ionâ€Induced Microstructural Changes During Electrochemical Gating of Poly(3â€Hexylthiophene). Advanced Functional Materials, 2018, 28, 1803687.	14.9	74
35	Conjugated oligomers incorporating azulene building blocks â€“ seven- vs. five-membered ring connectivity. Chemical Science, 2014, 5, 4483-4489.	7.4	70
36	The Role of Ordering on the Thermoelectric Properties of Blends of Regioregular and Regiorandom Poly(3â€hexylthiophene). Advanced Electronic Materials, 2019, 5, 1800915.	5.1	68

#	Article	IF	Citations
37	Effects of the surface roughness of plastic-compatible inorganic dielectrics on polymeric thin film transistors. Applied Physics Letters, 2007, 90, 233508.	3.3	66
38	Super-soft solvent-free bottlebrush elastomers for touch sensing. Materials Horizons, 2020, 7, 181-187.	12.2	63
39	Electrochemical Effects in Thermoelectric Polymers. ACS Macro Letters, 2016, 5, 455-459.	4.8	59
40	The Role of Solvent Additive Processing in High Performance Small Molecule Solar Cells. Chemistry of Materials, 2014, 26, 6531-6541.	6.7	58
41	NEXAFS Spectroscopy Reveals the Molecular Orientation in Blade-Coated Pyridal[2,1,3]thiadiazole-Containing Conjugated Polymer Thin Films. Macromolecules, 2015, 48, 6606-6616.	4.8	56
42	Role of Disorder Induced by Doping on the Thermoelectric Properties of Semiconducting Polymers. Chemistry of Materials, 2018, 30, 2965-2972.	6.7	55
43	Largeâ€scale integration of flexible materials into rolled and corrugated thermoelectric modules. Journal of Applied Polymer Science, 2017, 134, .	2.6	51
44	A One-Step Strategy for End-Functionalized Donorâ€“Acceptor Conjugated Polymers. Macromolecules, 2013, 46, 6431-6438.	4.8	49
45	Schmitt Trigger Using a Selfâ€Healing Ionic Liquid Gated Transistor. Advanced Materials, 2015, 27, 3331-3335.	21.0	48
46	Main-Group Halide Semiconductors Derived from Perovskite: Distinguishing Chemical, Structural, and Electronic Aspects. Inorganic Chemistry, 2017, 56, 11-25.	4.0	45
47	Branched Side Chains Govern Counterion Position and Doping Mechanism in Conjugated Polythiophenes. ACS Macro Letters, 2018, 7, 1492-1497.	4.8	45
48	Tailoring the Seebeck Coefficient of PEDOT:PSS by Controlling Ion Stoichiometry in Ionic Liquid Additives. Chemistry of Materials, 2018, 30, 4816-4822.	6.7	45
49	Understanding Instability in Formamidinium Lead Halide Perovskites: Kinetics of Transformative Reactions at Grain and Subgrain Boundaries. ACS Energy Letters, 2022, 7, 1534-1543.	17.4	45
50	High Conductivity in a Nonplanar n-Doped Ambipolar Semiconducting Polymer. Chemistry of Materials, 2017, 29, 9742-9750.	6.7	42
51	Controlling the Doping Mechanism in Poly(3-hexylthiophene) Thin-Film Transistors with Polymeric Ionic Liquid Dielectrics. Chemistry of Materials, 2019, 31, 8820-8829.	6.7	41
52	Linking Vertical Bulkâ€Heterojunction Composition and Transient Photocurrent Dynamics in Organic Solar Cells with Solutionâ€Processed MoO_x Contact Layers. Advanced Energy Materials, 2014, 4, 1301290.	19.5	40
53	(TTF)Pb₂I₅: A Radical Cation-Stabilized Hybrid Lead Iodide with Synergistic Optoelectronic Signatures. Chemistry of Materials, 2016, 28, 3607-3611.	6.7	40
54	Controlling Solvate Intermediate Growth for Phase-Pure Organic Lead Iodide Ruddlesdenâ€“Popper (C₄H₉NH₃)₂(CH₃NH₃)_{n−1}Pb_n Perovskite Thin Films. Chemistry of Materials, 2019, 31, 5832-5844.	6.7	39

#	Article	IF	Citations
55	Charge transport in a two-dimensional hybrid metal halide thiocyanate compound. Journal of Materials Chemistry C, 2017, 5, 5930-5938.	5.5	37
56	Anisotropies and the thermoelectric properties of semiconducting polymers. Journal of Applied Polymer Science, 2017, 134, .	2.6	37
57	Ion Pair Uptake in Ion Gel Devices Based on Organic Mixed Ionicâ€“Electronic Conductors. Advanced Functional Materials, 2021, 31, 2104301.	14.9	35
58	Universal Approach to Photo-Crosslink Bottlebrush Polymers. Macromolecules, 2020, 53, 1090-1097.	4.8	34
59	Nâ€Type Surface Doping of MAPbI₃ via Charge Transfer from Small Molecules. Advanced Electronic Materials, 2018, 4, 1800087.	5.1	33
60	Effects of Counterâ€Ion Size on Delocalization of Carriers and Stability of Doped Semiconducting Polymers. Advanced Electronic Materials, 2020, 6, 2000595.	5.1	33
61	Dynamic Motion of Organic Spacer Cations in Ruddlesdenâ€“Popper Lead Iodide Perovskites Probed by Solid-State NMR Spectroscopy. Chemistry of Materials, 2021, 33, 642-656.	6.7	33
62	Mono- and Mixed-Valence Tetrathiafulvalene Semiconductors (TTF)BiI₄ and (TTF)₄BiI₆ with 1D and 0D Bismuth-Iodide Networks. Inorganic Chemistry, 2017, 56, 395-401.	4.0	32
63	Phase Stability and Diffusion in Lateral Heterostructures of Methyl Ammonium Lead Halide Perovskites. ACS Applied Materials & Interfaces, 2019, 11, 25313-25321.	8.0	32
64	Anisotropic Thermal Transport in Thermoelectric Composites of Conjugated Polyelectrolytes/Single-Walled Carbon Nanotubes. Macromolecules, 2016, 49, 4957-4963.	4.8	31
65	Multi-Sulfur-Annulated Fused Perylene Diimides for Organic Solar Cells with Low Open-Circuit Voltage Loss. ACS Applied Energy Materials, 2019, 2, 3805-3814.	5.1	31
66	Light-Switchable and Self-Healable Polymer Electrolytes Based on Dynamic Diarylethene and Metal-Ion Coordination. Journal of the American Chemical Society, 2021, 143, 1562-1569.	13.7	31
67	Highly Organized Smectic-like Packing in Vapor-Deposited Glasses of a Liquid Crystal. Chemistry of Materials, 2017, 29, 849-858.	6.7	30
68	Phase Intergrowth and Structural Defects in Organic Metal Halide Ruddlesdenâ€“Popper Thin Films. Chemistry of Materials, 2018, 30, 8615-8623.	6.7	29
69	Nonaggregating Doped Polymers Based on Poly(3,4-Propylenedioxythiophene). Macromolecules, 2019, 52, 2203-2213.	4.8	29
70	Thermoelectric Properties of Semiconducting Polymers. Annual Review of Materials Research, 2020, 50, 551-574.	9.3	29
71	Recombination at high carrier density in methylammonium lead iodide studied using time-resolved microwave conductivity. Journal of Applied Physics, 2017, 122, .	2.5	27
72	Tail Stateâ€Assisted Charge Injection and Recombination at the Electronâ€Collecting Interface of P3HT:PCBM Bulkâ€Heterojunction Polymer Solar Cells. Advanced Energy Materials, 2012, 2, 1447-1455.	19.5	24

#	Article	IF	Citations
73	Optical Constants and Effective-Medium Origins of Large Optical Anisotropies in Layered Hybrid Organic/Inorganic Perovskites. ACS Nano, 2019, 13, 10745-10753.	14.6	24
74	Bright magnetic dipole radiation from two-dimensional lead-halide perovskites. Science Advances, 2020, 6, eaay4900.	10.3	24
75	Even-Parity Self-Trapped Excitons Lead to Magnetic Dipole Radiation in Two-Dimensional Lead Halide Perovskites. ACS Nano, 2020, 14, 8958-8968.	14.6	23
76	Connecting Electrical and Molecular Properties of Semiconducting Polymers for Thin-Film Transistors. MRS Bulletin, 2008, 33, 683-689.	3.5	22
77	Interfacial Characteristics of Efficient Bulk Heterojunction Solar Cells Fabricated on MoO_x Anode Interlayers. Advanced Materials, 2016, 28, 3944-3951.	21.0	21
78	First-Principles Predictions of Near-Edge X-ray Absorption Fine Structure Spectra of Semiconducting Polymers. Journal of Physical Chemistry C, 2017, 121, 9142-9152.	3.1	20
79	Enhanced yield-mobility products in hybrid halide Ruddlesdenâ€“Popper compounds with aromatic ammonium spacers. Dalton Transactions, 2019, 48, 14019-14026.	3.3	20
80	Unraveling the Unconventional Order of a High-Mobility Indacenodithiopheneâ€“Benzothiadiazole Copolymer. ACS Macro Letters, 2021, 10, 1306-1314.	4.8	20
81	PCBM Disperse-Red Ester with Strong Visible-Light Absorption: Implication of Molecular Design and Morphological Control for Organic Solar Cells. Journal of Physical Chemistry C, 2012, 116, 1313-1321.	3.1	19
82	Quadrites and Crossed-Chain Crystal Structures in Polymer Semiconductors. Nano Letters, 2014, 14, 3096-3101.	9.1	19
83	Effects of Side-Chain Topology on Aggregation of Conjugated Polymers. Macromolecules, 2018, 51, 2580-2590.	4.8	19
84	Electronic, Ionic, and Mixed Conduction in Polymeric Systems. Annual Review of Materials Research, 2021, 51, 1-20.	9.3	19
85	Structural Evolution of Layered Hybrid Lead Iodide Perovskites in Colloidal Dispersions. ACS Nano, 2020, 14, 11294-11308.	14.6	18
86	Aqueous Formulation of Concentrated Semiconductive Fluid Using Polyelectrolyte Coacervation. ACS Macro Letters, 2021, 10, 1008-1014.	4.8	17
87	Tuning of the elastic modulus of a soft polythiophene through molecular doping. Materials Horizons, 2022, 9, 433-443.	12.2	17
88	Morphology-dependent optical anisotropies in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math>-type polymer P(NDI2OD-T2). Physical Review B, 2016, 94, .	3.2	16
89	Effect of Alkyl Side Chains on Intercrystallite Ordering in Semiconducting Polymers. Macromolecules, 2019, 52, 2853-2862.	4.8	15
90	Ferroelastic Hysteresis in Thin Films of Methylammonium Lead Iodide. Chemistry of Materials, 2021, 33, 298-309.	6.7	15

#	Article	IF	Citations
91	Role of Crystallization in the Morphology of Polymer:Non-fullerene Acceptor Bulk Heterojunctions. ACS Applied Materials & Interfaces, 2017, 9, 19021-19029.	8.0	14
92	Model-blind characterization of thin-film optical constants with momentum-resolved reflectometry. Optics Express, 2016, 24, 28842.	3.4	13
93	Photocrosslinking polymeric ionic liquids via anthracene cycloaddition for organic electronics. Journal of Materials Chemistry C, 2018, 6, 8762-8769.	5.5	13
94	Doping molecular organic semiconductors by diffusion from the vapor phase. Materials Chemistry Frontiers, 2020, 4, 3632-3639.	5.9	13
95	Growth-Controlled Broad Emission in Phase-Pure Two-Dimensional Hybrid Perovskite Films. Chemistry of Materials, 2021, 33, 7290-7300.	6.7	13
96	Dynamics of Additive Migration to Form Cathodic Interlayers in Organic Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 29889-29900.	8.0	10
97	Steady-state microwave conductivity reveals mobility-lifetime product in methylammonium lead iodide. Applied Physics Letters, 2018, 113, 153902.	3.3	9
98	Model for the electro-mechanical behavior of elastic organic transistors. Journal of Materials Chemistry C, 2020, 8, 9276-9285.	5.5	8
99	Yielding Behavior of Bottlebrush and Linear Block Copolymers. Macromolecules, 2021, 54, 5636-5647.	4.8	7
100	Suppressing crystallization in solution-processed thin films of organic semiconductors. MRS Communications, 2015, 5, 447-452.	1.8	6
101	Sulfur-fused perylene diimide electron transport layers allow >400 h operational lifetime of methylammonium lead iodide photovoltaics. Journal of Materials Chemistry C, 2019, 7, 11126-11133.	5.5	6
102	Transient Strain-Induced Electronic Structure Modulation in a Semiconducting Polymer Imaged by Scanning Ultrafast Electron Microscopy. Nano Letters, 2021, 21, 9146-9152.	9.1	6
103	Carbon Nanotube Composites with Bottlebrush Elastomers for Compliant Electrodes. ACS Polymers Au, 2022, 2, 27-34.	4.1	6
104	A graph based approach to model charge transport in semiconducting polymers. Npj Computational Materials, 2022, 8, .	8.7	6
105	The role of anions in light-driven conductivity in diarylethene-containing polymeric ionic liquids. Polymer Chemistry, 2021, 12, 719-724.	3.9	5
106	Postdeposition Processing Influences the Relative Contributions of Electronic and Ionic Seebeck Effects in the Thermoelectric Response of Conducting Polymers. Journal of Physical Chemistry C, 2021, 125, 12289-12296.	3.1	5
107	Lewis acidâ€“base pair doping of p-type organic semiconductors. Journal of Materials Chemistry C, 2022, 10, 6287-6295.	5.5	5
108	Controlling the Solidification of Organic Photovoltaic Blends with Nucleating Agents. Organic Photonics and Photovoltaics, 2014, 2, .	1.3	4

#	Article	IF	Citations
109	GRATE: A framework and software for GRaph based Analysis of Transmission Electron Microscopy images of polymer films. Computational Materials Science, 2019, 163, 1-10.	3.0	3
110	Redox-Active Polymeric Ionic Liquids with Pendant N-Substituted Phenothiazine. ACS Applied Materials & Interfaces, 2021, 13, 5319-5326.	8.0	3
111	Robust Processing of Small-Molecule:Fullerene Organic Solar Cells via Use of Nucleating Agents. ACS Applied Energy Materials, 2018, 1, 1973-1980.	5.1	2
112	A new family of liquid and solid guanidine-based n-type dopants for solution-processed perovskite solar cells. Materials Chemistry Frontiers, 2020, 4, 3616-3622.	5.9	2
113	Multiwavelength Photodetectors Based on an Azobenzene Polymeric Ionic Liquid. ACS Applied Polymer Materials, 2021, 3, 5125-5133.	4.4	2
114	Optical-Frequency Magnetic Polarizability in a Layered Semiconductor. Physical Review Letters, 2021, 127, 173604.	7.8	2
115	Organic and hybrid thermoelectrics. Applied Physics Letters, 2021, 119, 260401.	3.3	2
116	Enhancing and Extinguishing the Different Emission Features of 2D (EA_{1â˜’}_xFA_x)₄Pb₃Br₁₀ Perovskite Films. Advanced Optical Materials, 2022, 10, .	7.3	2
117	Finding and landing an academic position in materials science in the US. Nature Reviews Materials, 2019, 4, 509-512.	48.7	1