Michael L Chabinyc

List of Publications by Year
in descending order

117 papers	11,330 citations	61687 45 h-index	32181 105 g-index
119 all docs	119 docs citations	119 times ranked	13403 citing authors

#	Article	IF	Citations
1	Carbon Nanotube Composites with Bottlebrush Elastomers for Compliant Electrodes. ACS Polymers Au, 2022, 2, 27-34.	1.7	6
2	Tuning of the elastic modulus of a soft polythiophene through molecular doping. Materials Horizons, 2022, 9, 433-443.	6.4	17
3	Lewis acidâ€“base pair doping of p-type organic semiconductors. Journal of Materials Chemistry C, 2022, 10, 6287-6295.	2.7	5
4	Understanding Instability in Formamidinium Lead Halide Perovskites: Kinetics of Transformative Reactions at Grain and Subgrain Boundaries. ACS Energy Letters, 2022, 7, 1534-1543.	8.8	45
5	A graph based approach to model charge transport in semiconducting polymers. Npj Computational Materials, 2022, 8, .	3.5	6
6	Enhancing and Extinguishing the Different Emission Features of 2D (EA_{1â˜’}_xFA_x)₄Pb₃Br₁₀ Perovskite Films. Advanced Optical Materials, 2022, 10, .	8.6	2
7	The role of anions in light-driven conductivity in diarylethene-containing polymeric ionic liquids. Polymer Chemistry, 2021, 12, 719-724.	1.9	5
8	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.	3.2	33
9	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.	6.6	31
10	Redox-Active Polymeric Ionic Liquids with Pendant N-Substituted Phenothiazine. ACS Applied Materials & Interfaces, 2021, 13, 5319-5326.	4.0	3
11	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.	1.5	5
12	The 2021 flexible and printed electronics roadmap. Flexible and Printed Electronics, 2021, 6, 023001.	1.5	100
13	Yielding Behavior of Bottlebrush and Linear Block Copolymers. Macromolecules, 2021, 54, 5636-5647.	2.2	7
14	Electronic, Ionic, and Mixed Conduction in Polymeric Systems. Annual Review of Materials Research, 2021, 51, 1-20.	4.3	19
15	Aqueous Formulation of Concentrated Semiconductive Fluid Using Polyelectrolyte Coacervation. ACS Macro Letters, 2021, 10, 1008-1014.	2.3	17
16	Ion Pair Uptake in Ion Gel Devices Based on Organic Mixed Ionicâ€“Electronic Conductors. Advanced Functional Materials, 2021, 31, 2104301.	7.8	35
17	Growth-Controlled Broad Emission in Phase-Pure Two-Dimensional Hybrid Perovskite Films. Chemistry of Materials, 2021, 33, 7290-7300.	3.2	13
18	Multiwavelength Photodetectors Based on an Azobenzene Polymeric Ionic Liquid. ACS Applied Polymer Materials, 2021, 3, 5125-5133.	2.0	2

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19	Ferroelastic Hysteresis in Thin Films of Methylammonium Lead Iodide. Chemistry of Materials, 2021, 33, 298-309.	3.2	15
20	Transient Strain-Induced Electronic Structure Modulation in a Semiconducting Polymer Imaged by Scanning Ultrafast Electron Microscopy. Nano Letters, 2021, 21, 9146-9152.	4.5	6
21	Optical-Frequency Magnetic Polarizability in a Layered Semiconductor. Physical Review Letters, 2021, 127, 173604.	2.9	2
22	Unraveling the Unconventional Order of a High-Mobility Indacenodithiopheneâ€“Benzothiadiazole Copolymer. ACS Macro Letters, 2021, 10, 1306-1314.	2.3	20
23	Organic and hybrid thermoelectrics. Applied Physics Letters, 2021, 119, 260401.	1.5	2
24	Super-soft solvent-free bottlebrush elastomers for touch sensing. Materials Horizons, 2020, 7, 181-187.	6.4	63
25	Even-Parity Self-Trapped Excitons Lead to Magnetic Dipole Radiation in Two-Dimensional Lead Halide Perovskites. ACS Nano, 2020, 14, 8958-8968.	7.3	23
26	Room temperature 3D printing of super-soft and solvent-free elastomers. Science Advances, 2020, 6, .	4.7	81
27	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.	3.2	2
28	Effects of Counterâ€Ion Size on Delocalization of Carriers and Stability of Doped Semiconducting Polymers. Advanced Electronic Materials, 2020, 6, 2000595.	2.6	33
29	Doping molecular organic semiconductors by diffusion from the vapor phase. Materials Chemistry Frontiers, 2020, 4, 3632-3639.	3.2	13
30	Structural Evolution of Layered Hybrid Lead Iodide Perovskites in Colloidal Dispersions. ACS Nano, 2020, 14, 11294-11308.	7.3	18
31	Model for the electro-mechanical behavior of elastic organic transistors. Journal of Materials Chemistry C, 2020, 8, 9276-9285.	2.7	8
32	Thermoelectric Properties of Semiconducting Polymers. Annual Review of Materials Research, 2020, 50, 551-574.	4.3	29
33	Bright magnetic dipole radiation from two-dimensional lead-halide perovskites. Science Advances, 2020, 6, eaay4900.	4.7	24
34	Universal Approach to Photo-Crosslink Bottlebrush Polymers. Macromolecules, 2020, 53, 1090-1097.	2.2	34
35	Finding and landing an academic position in materials science in the US. Nature Reviews Materials, 2019, 4, 509-512.	23.3	1
36	Controlling Solvate Intermediate Growth for Phase-Pure Organic Lead Iodide Ruddlesdenâ€“Popper (C₄H₉NH₃)₂(CH₃NH₃)_{n−1}Pb<s Perovskite Thin Films. Chemistry of Materials, 2019, 31, 5832-5844.	9.2	39

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37	Phase Stability and Diffusion in Lateral Heterostructures of Methyl Ammonium Lead Halide Perovskites. ACS Applied Materials & Interfaces, 2019, 11, 25313-25321.	4.0	32
38	Controlling the Doping Mechanism in Poly(3-hexylthiophene) Thin-Film Transistors with Polymeric Ionic Liquid Dielectrics. Chemistry of Materials, 2019, 31, 8820-8829.	3.2	41
39	Chemical and Structural Diversity of Hybrid Layered Double Perovskite Halides. Journal of the American Chemical Society, 2019, 141, 19099-19109.	6.6	144
40	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.	2.7	6
41	Seven-Layered 2D Hybrid Lead Iodide Perovskites. CheM, 2019, 5, 2593-2604.	5.8	79
42	Enhanced yield-mobility products in hybrid halide Ruddlesdenâ€“Popper compounds with aromatic ammonium spacers. Dalton Transactions, 2019, 48, 14019-14026.	1.6	20
43	Optical Constants and Effective-Medium Origins of Large Optical Anisotropies in Layered Hybrid Organic/Inorganic Perovskites. ACS Nano, 2019, 13, 10745-10753.	7.3	24
44	The Role of Ordering on the Thermoelectric Properties of Blends of Regioregular and Regiorandom Poly(3â€hexylthiophene). Advanced Electronic Materials, 2019, 5, 1800915.	2.6	68
45	GRATE: A framework and software for GRaph based Analysis of Transmission Electron Microscopy images of polymer films. Computational Materials Science, 2019, 163, 1-10.	1.4	3
46	Multi-Sulfur-Annulated Fused Perylene Diimides for Organic Solar Cells with Low Open-Circuit Voltage Loss. ACS Applied Energy Materials, 2019, 2, 3805-3814.	2.5	31
47	Effect of Alkyl Side Chains on Intercrystallite Ordering in Semiconducting Polymers. Macromolecules, 2019, 52, 2853-2862.	2.2	15
48	Nonaggregating Doped Polymers Based on Poly(3,4-Propylenedioxythiophene). Macromolecules, 2019, 52, 2203-2213.	2.2	29
49	Role of Disorder Induced by Doping on the Thermoelectric Properties of Semiconducting Polymers. Chemistry of Materials, 2018, 30, 2965-2972.	3.2	55
50	Robust Processing of Small-Molecule:Fullerene Organic Solar Cells via Use of Nucleating Agents. ACS Applied Energy Materials, 2018, 1, 1973-1980.	2.5	2
51	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.	3.2	190
52	Charge-Carrier Dynamics and Crystalline Texture of Layered Ruddlesdenâ€“Popper Hybrid Lead Iodide Perovskite Thin Films. ACS Energy Letters, 2018, 3, 380-386.	8.8	97
53	Effects of Side-Chain Topology on Aggregation of Conjugated Polymers. Macromolecules, 2018, 51, 2580-2590.	2.2	19
54	Phase Intergrowth and Structural Defects in Organic Metal Halide Ruddlesdenâ€“Popper Thin Films. Chemistry of Materials, 2018, 30, 8615-8623.	3.2	29

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55	Branched Side Chains Govern Counterion Position and Doping Mechanism in Conjugated Polythiophenes. ACS Macro Letters, 2018, 7, 1492-1497.	2.3	45
56	Steady-state microwave conductivity reveals mobility-lifetime product in methylammonium lead iodide. Applied Physics Letters, 2018, 113, 153902.	1.5	9
57	Xâ€Ray Scattering Reveals Ionâ€Induced Microstructural Changes During Electrochemical Gating of Poly(3â€Hexylthiophene). Advanced Functional Materials, 2018, 28, 1803687.	7.8	74
58	A practical field guide to thermoelectrics: Fundamentals, synthesis, and characterization. Applied Physics Reviews, 2018, 5, 021303.	5.5	223
59	Photocrosslinking polymeric ionic liquids via anthracene cycloaddition for organic electronics. Journal of Materials Chemistry C, 2018, 6, 8762-8769.	2.7	13
60	Tailoring the Seebeck Coefficient of PEDOT:PSS by Controlling Ion Stoichiometry in Ionic Liquid Additives. Chemistry of Materials, 2018, 30, 4816-4822.	3.2	45
61	Nâ€Type Surface Doping of MAPbI₃ via Charge Transfer from Small Molecules. Advanced Electronic Materials, 2018, 4, 1800087.	2.6	33
62	Highly Organized Smectic-like Packing in Vapor-Deposited Glasses of a Liquid Crystal. Chemistry of Materials, 2017, 29, 849-858.	3.2	30
63	First-Principles Predictions of Near-Edge X-ray Absorption Fine Structure Spectra of Semiconducting Polymers. Journal of Physical Chemistry C, 2017, 121, 9142-9152.	1.5	20
64	High-efficiency photovoltaic cells with wide optical band gap polymers based on fluorinated phenylene-alkoxybenzothiadiazole. Energy and Environmental Science, 2017, 10, 1443-1455.	15.6	84
65	Morphology controls the thermoelectric power factor of a doped semiconducting polymer. Science Advances, 2017, 3, e1700434.	4.7	272
66	Role of Crystallization in the Morphology of Polymer:Non-fullerene Acceptor Bulk Heterojunctions. ACS Applied Materials & Interfaces, 2017, 9, 19021-19029.	4.0	14
67	Charge transport in a two-dimensional hybrid metal halide thiocyanate compound. Journal of Materials Chemistry C, 2017, 5, 5930-5938.	2.7	37
68	Mono- and Mixed-Valence Tetrathiafulvalene Semiconductors (TTF)BiI₄ and (TTF)₄BiI₆ with 1D and 0D Bismuth-Iodide Networks. Inorganic Chemistry, 2017, 56, 395-401.	1.9	32
69	Recombination at high carrier density in methylammonium lead iodide studied using time-resolved microwave conductivity. Journal of Applied Physics, 2017, 122, .	1.1	27
70	Dynamics of Additive Migration to Form Cathodic Interlayers in Organic Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 29889-29900.	4.0	10
71	High Conductivity in a Nonplanar n-Doped Ambipolar Semiconducting Polymer. Chemistry of Materials, 2017, 29, 9742-9750.	3.2	42
72	Largeâ€scale integration of flexible materials into rolled and corrugated thermoelectric modules. Journal of Applied Polymer Science, 2017, 134, .	1.3	51

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73	Anisotropies and the thermoelectric properties of semiconducting polymers. Journal of Applied Polymer Science, 2017, 134, .	1.3	37
74	Main-Group Halide Semiconductors Derived from Perovskite: Distinguishing Chemical, Structural, and Electronic Aspects. Inorganic Chemistry, 2017, 56, 11-25.	1.9	45
75	Model-blind characterization of thin-film optical constants with momentum-resolved reflectometry. Optics Express, 2016, 24, 28842.	1.7	13
76	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, .	1.1	16
77	Organic thermoelectric materials for energy harvesting and temperature control. Nature Reviews Materials, 2016, 1, .	23.3	927
78	Anisotropic Thermal Transport in Thermoelectric Composites of Conjugated Polyelectrolytes/Single-Walled Carbon Nanotubes. Macromolecules, 2016, 49, 4957-4963.	2.2	31
79	(TTF)Pb₂I₅: A Radical Cation-Stabilized Hybrid Lead Iodide with Synergistic Optoelectronic Signatures. Chemistry of Materials, 2016, 28, 3607-3611.	3.2	40
80	Electrochemical Effects in Thermoelectric Polymers. ACS Macro Letters, 2016, 5, 455-459.	2.3	59
81	Increasing the Thermoelectric Power Factor of a Semiconducting Polymer by Doping from the Vapor Phase. ACS Macro Letters, 2016, 5, 268-272.	2.3	133
82	Tethered tertiary amines as solid-state n-type dopants for solution-processable organic semiconductors. Chemical Science, 2016, 7, 1914-1919.	3.7	91
83	Interfacial Characteristics of Efficient Bulk Heterojunction Solar Cells Fabricated on MoO_x Anode Interlayers. Advanced Materials, 2016, 28, 3944-3951.	11.1	21
84	Suppressing crystallization in solution-processed thin films of organic semiconductors. MRS Communications, 2015, 5, 447-452.	0.8	6
85	Structural Characterization of Vapor-Deposited Glasses of an Organic Hole Transport Material with X-ray Scattering. Chemistry of Materials, 2015, 27, 3341-3348.	3.2	78
86	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.	15.6	102
87	Schmitt Trigger Using a Selfâ€Healing Ionic Liquid Gated Transistor. Advanced Materials, 2015, 27, 3331-3335.	11.1	48
88	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.	3.2	413
89	Temperature-Dependent Polarization in Field-Effect Transport and Photovoltaic Measurements of Methylammonium Lead Iodide. Journal of Physical Chemistry Letters, 2015, 6, 3565-3571.	2.1	105
90	NEXAFS Spectroscopy Reveals the Molecular Orientation in Blade-Coated Pyridal[2,1,3]thiadiazole-Containing Conjugated Polymer Thin Films. Macromolecules, 2015, 48, 6606-6616.	2.2	56

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91	Impact of the Doping Method on Conductivity and Thermopower in Semiconducting Polythiophenes. Advanced Energy Materials, 2015, 5, 1401072.	10.2	336
92	Phase Separation in Bulk Heterojunctions of Semiconducting Polymers and Fullerenes for Photovoltaics. Annual Review of Physical Chemistry, 2014, 65, 59-81.	4.8	99
93	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.	10.2	40
94	The Role of Solvent Additive Processing in High Performance Small Molecule Solar Cells. Chemistry of Materials, 2014, 26, 6531-6541.	3.2	58
95	Conjugated oligomers incorporating azulene building blocks â€“ seven- vs. five-membered ring connectivity. Chemical Science, 2014, 5, 4483-4489.	3.7	70
96	Molecular Interactions and Ordering in Electrically Doped Polymers: Blends of PBTTT and F₄TCNQ. Macromolecules, 2014, 47, 6836-6846.	2.2	164
97	Quadrites and Crossed-Chain Crystal Structures in Polymer Semiconductors. Nano Letters, 2014, 14, 3096-3101.	4.5	19
98	Power Factor Enhancement in Solutionâ€Processed Organic nâ€Type Thermoelectrics Through Molecular Design. Advanced Materials, 2014, 26, 3473-3477.	11.1	196
99	Solubilityâ€Limited Extrinsic nâ€Type Doping of a High Electron Mobility Polymer for Thermoelectric Applications. Advanced Materials, 2014, 26, 2825-2830.	11.1	328
100	Controlling the Solidification of Organic Photovoltaic Blends with Nucleating Agents. Organic Photonics and Photovoltaics, 2014, 2, .	1.3	4
101	A One-Step Strategy for End-Functionalized Donorâ€“Acceptor Conjugated Polymers. Macromolecules, 2013, 46, 6431-6438.	2.2	49
102	Ultralow thermal conductivity of fullerene derivatives. Physical Review B, 2013, 88, .	1.1	98
103	Remarkable Order of a High-Performance Polymer. Nano Letters, 2013, 13, 2522-2527.	4.5	120
104	Microstructure formation in molecular and polymer semiconductors assisted by nucleation agents. Nature Materials, 2013, 12, 628-633.	13.3	131
105	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.	1.5	19
106	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.	6.6	196
107	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.	10.2	24
108	Recent progress in the morphology of bulk heterojunction photovoltaics. Soft Matter, 2011, 7, 11065.	1.2	147

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109	Interdiffusion of PCBM and P3HT Reveals Miscibility in a Photovoltaically Active Blend. Advanced Energy Materials, 2011, 1, 82-89.	10.2	572
110	Microstructural Characterization and Charge Transport in Thin Films of Conjugated Polymers. Advanced Materials, 2010, 22, 3812-3838.	11.1	464
111	Semiconducting Thienothiophene Copolymers: Design, Synthesis, Morphology, and Performance in Thinâ€Film Organic Transistors. Advanced Materials, 2009, 21, 1091-1109.	11.1	412
112	Solidâ€State Supramolecular Organization of Polythiophene Chains Containing Thienothiophene Units. Advanced Materials, 2009, 21, 1193-1198.	11.1	76
113	Connecting Electrical and Molecular Properties of Semiconducting Polymers for Thin-Film Transistors. MRS Bulletin, 2008, 33, 683-689.	1.7	22
114	Effects of the surface roughness of plastic-compatible inorganic dielectrics on polymeric thin film transistors. Applied Physics Letters, 2007, 90, 233508.	1.5	66
115	Critical Role of Side-Chain Attachment Density on the Order and Device Performance of Polythiophenes. Macromolecules, 2007, 40, 7960-7965.	2.2	321
116	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.	6.6	351
117	Liquid-crystalline semiconducting polymers with high charge-carrier mobility. Nature Materials, 2006, 5, 328-333.	13.3	2,001