Michael E Mackay

List of Publications by Year
in descending order

56	6,821	136740 32	149479 56
papers	citations	h-index	g-index

57	57	57	7280
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The use of elemental sulfur as an alternative feedstock for polymeric materials. Nature Chemistry, 2013, 5, 518-524.	6.6	1,046
2	General Strategies for Nanoparticle Dispersion. Science, 2006, 311, 1740-1743.	6.0	875
3	A Healable Supramolecular Polymer Blend Based on Aromatic Ï€â^'Ï€ Stacking and Hydrogen-Bonding Interactions. Journal of the American Chemical Society, 2010, 132, 12051-12058.	6.6	779
4	Nanoscale effects leading to non-Einstein-like decrease in viscosity. Nature Materials, 2003, 2, 762-766.	13.3	562
5	New Infrared Transmitting Material via Inverse Vulcanization of Elemental Sulfur to Prepare High Refractive Index Polymers. Advanced Materials, 2014, 26, 3014-3018.	11.1	296
6	Utilization of a Combination of Weak Hydrogen-Bonding Interactions and Phase Segregation to Yield Highly Thermosensitive Supramolecular Polymers. Journal of the American Chemical Society, 2005, 127, 18202-18211.	6.6	266
7	Effect of Ideal, Organic Nanoparticles on the Flow Properties of Linear Polymers:â€‰ Non-Einstein-like Behavior. Macromolecules, 2005, 38, 8000-8011.	2.2	212
8	Dynamic Covalent Polymers via Inverse Vulcanization of Elemental Sulfur for Healable Infrared Optical Materials. ACS Macro Letters, 2015, 4, 862-866.	2.3	193
9	Multifunctional Nanocomposites with Reduced Viscosity. Macromolecules, 2007, 40, 9427-9434.	2.2	189
10	Nanoparticle concentration profile in polymer-based solar cells. Soft Matter, 2010, 6, 641-646.	1.2	167
11	The importance of rheological behavior in the additive manufacturing technique material extrusion. Journal of Rheology, 2018, 62, 1549-1561.	1.3	166
12	High Refractive Index Copolymers with Improved Thermomechanical Properties via the Inverse Vulcanization of Sulfur and 1,3,5-Triisopropenylbenzene. ACS Macro Letters, 2016, 5, 1152-1156.	2.3	150
13	Inverse vulcanization of elemental sulfur with 1,4-diphenylbutadiyne for cathode materials in Liâ€“S batteries. RSC Advances, 2015, 5, 24718-24722.	1.7	149
14	Inverse vulcanization of elemental sulfur and styrene for polymeric cathodes in Liâ€S batteries. Journal of Polymer Science Part A, 2017, 55, 107-116.	2.5	139
15	Increased fracture toughness of additively manufactured amorphous thermoplastics via thermal annealing. Polymer, 2018, 144, 192-204.	1.8	139
16	Nanoparticle Agglomeration in Polymer-Based Solar Cells. Physical Review Letters, 2010, 105, 168701.	2.9	129
17	Preparation of Dynamic Covalent Polymers via Inverse Vulcanization of Elemental Sulfur. ACS Macro Letters, 2014, 3, 1258-1261.	2.3	124
18	Chalcogenide Hybrid Inorganic/Organic Polymers: Ultrahigh Refractive Index Polymers for Infrared Imaging. ACS Macro Letters, 2017, 6, 500-504.	2.3	111

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19	Rheological and heat transfer effects in fused filament fabrication. Journal of Rheology, 2018, 62, 1097-1107.	1.3	96
20	100th Anniversary of Macromolecular Science Viewpoint: High Refractive Index Polymers from Elemental Sulfur for Infrared Thermal Imaging and Optics. ACS Macro Letters, 2020, 9, 245-259.	2.3	87
21	Multivalency in healable supramolecular polymers: the effect of supramolecular cross-link density on the mechanical properties and healing of non-covalent polymer networks. Polymer Chemistry, 2014, 5, 3680-3688.	1.9	75
22	The performance of the hot end in a plasticating 3D printer. Journal of Rheology, 2017, 61, 229-236.	1.3	70
23	Controlled ionic conductivity via tapered block polymer electrolytes. RSC Advances, 2015, 5, 12597-12604.	1.7	69
24	Infrared Fingerprint Engineering: A Molecularâ€Ðesign Approach to Longâ€Wave Infrared Transparency with Polymeric Materials. Angewandte Chemie - International Edition, 2019, 58, 17656-17660.	7.2	57
25	Molecular architecture and rheological characterization of novel intramolecularly crosslinked polystyrene nanoparticles. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 1930-1947.	2.4	49
26	Functionalized chalcogenide hybrid inorganic/organic polymers (CHIPs) via inverse vulcanization of elemental sulfur and vinylanilines. Polymer Chemistry, 2018, 9, 2290-2294.	1.9	48
27	Nanoparticles for dewetting suppression of thin polymer films used in chemical sensors. Journal of Nanoparticle Research, 2007, 9, 753-763.	0.8	47
28	Analysis of entry flow to determine elongation flow properties revisited. Journal of Non-Newtonian Fluid Mechanics, 1997, 70, 219-235.	1.0	44
29	Development of Polymeric Phase Change Materials On the basis of Dielsâ^'Alder Chemistry. Macromolecules, 2010, 43, 6135-6141.	2.2	36
30	Targeted surface nanocomplexity: two-dimensional control over the composition, physical properties and anti-biofouling performance of hyperbranched fluoropolymerâ€"poly(ethylene glycol) amphiphilic crosslinked networks. Polymer Chemistry, 2012, 3, 3121.	1.9	36
31	Shear-Induced Solution Crystallization of Poly(3-hexylthiophene) (P3HT). Macromolecules, 2014, 47, 3343-3349.	2.2	35
32	Synthesis, selfâ€assembly and reversible healing of supramolecular perfluoropolyethers. Journal of Polymer Science Part A, 2013, 51, 3598-3606.	2.5	34
33	Effect of Chain Stiffness on Nanoparticle Segregation in Polymer/Nanoparticle Blends Near a Substrate. Macromolecular Theory and Simulations, 2012, 21, 98-105.	0.6	33
34	Computational fluid dynamics simulation of the melting process in the fused filament fabrication additive manufacturing technique. Additive Manufacturing, 2020, 33, 101161.	1.7	32
35	Enthalpy of fusion of poly(3-hexylthiophene) by differential scanning calorimetry. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1469-1475.	2.4	28
36	Three-Phase Morphology of Semicrystalline Polymer Semiconductors: A Quantitative Analysis. ACS Macro Letters, 2015, 4, 1051-1055.	2.3	28

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37	Control of nanoparticle dispersion in thin polymer films. Soft Matter, 2008, 4, 2441.	1.2	27
38	Hierarchical Inorganicâ€“Organic Nanocomposites Possessing Amphiphilic and Morphological Complexities: Influence of Nanofiller Dispersion on Mechanical Performance. Advanced Functional Materials, 2008, 18, 2733-2744.	7.8	26
39	Innovations Toward the Valorization of Plastics Waste. Annual Review of Materials Research, 2022, 52, 249-280.	4.3	21
40	Calculation of Entropic Terms Governing Nanoparticle Self-Assembly in Polymer Films. Macromolecules, 2008, 41, 5952-5954.	2.2	19
41	Using tapered interfaces to manipulate nanoscale morphologies in ion-doped block polymers. MRS Communications, 2015, 5, 251-256.	0.8	19
42	Dual length morphological model for bulkâ€heterojunction, polymerâ€based solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 387-396.	2.4	14
43	Infrared Fingerprint Engineering: A Molecularâ€Design Approach to Longâ€Wave Infrared Transparency with Polymeric Materials. Angewandte Chemie, 2019, 131, 17820-17824.	1.6	12
44	Chalcogenide hybrid inorganic/organic polymer resins: Amine functional prepolymers from elemental sulfur. Journal of Polymer Science, 2020, 58, 35-41.	2.0	12
45	Three-dimensional liquid surfaces through nanoparticle self-assembly. Soft Matter, 2010, 6, 1533.	1.2	11
46	Correlation between morphology and device performance of pBTTT:PC71BM solar cells. Solar Energy Materials and Solar Cells, 2016, 155, 387-396.	3.0	10
47	Kinetics and Mechanism of Poly(3-hexylthiophene) Crystallization in Solution under Shear Flow. Macromolecules, 2020, 53, 5795-5804.	2.2	10
48	A comparative study on the morphology of P3HT:PCBM solar cells with the addition of Fe3O4 nanoparticles by spin and rod coating methods. Journal of Nanoparticle Research, 2017, 19, 1.	0.8	9
49	The generalized engineering Bernoulli equation (GEBE) and the first and second laws of thermodynamics for viscoelastic fluids. Journal of Rheology, 1996, 40, 335-346.	1.3	7
50	Postextrusion Heating in Three-Dimensional Printing. Journal of Heat Transfer, 2020, 142, .	1.2	7
51	Device performance enhancement of polymer solar cells by nanoparticle self-assembly. Solar Energy Materials and Solar Cells, 2017, 160, 126-133.	3.0	6
52	Performance enhancement of polymer-based solar cells by induced phase-separation with silica particles. Journal of Materials Chemistry C, 2014, 2, 10087-10100.	2.7	5
53	Effect of aluminum deposition and annealing on polymerâ€based solar cell performance. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 772-780.	2.4	4
54	Brush-Painted Solar Cells from Pre-Crystallized Components in a Nonhalogenated Solvent System Prepared by a Simple Stirring Technique. Macromolecules, 2020, 53, 8276-8285.	2.2	1

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55	Thermal Analysis of Semiconducting Polymer Crystals Free of a Mobile Amorphous Fraction. Macromolecules, 2021, 54, 2155-2161.	2.2	1
56	Chalcogenide hybrid inorganic/organic polymer resins: Amine functional prepolymers from elemental sulfur. Journal of Polymer Science, 2020, 58, 35-41.	2.0	0