

Michael E Mackay

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

55
papers

5,466
citations

30
h-index

57
g-index

57
ext. papers

6,120
ext. citations

6.8
avg, IF

5.56
L-index

#	Paper	IF	Citations
55	General strategies for nanoparticle dispersion. <i>Science</i> , 2006 , 311, 1740-3	33.3	791
54	The use of elemental sulfur as an alternative feedstock for polymeric materials. <i>Nature Chemistry</i> , 2013 , 5, 518-24	17.6	748
53	A healable supramolecular polymer blend based on aromatic pi-pi stacking and hydrogen-bonding interactions. <i>Journal of the American Chemical Society</i> , 2010 , 132, 12051-8	16.4	657
52	Nanoscale effects leading to non-Einstein-like decrease in viscosity. <i>Nature Materials</i> , 2003 , 2, 762-6	27	516
51	Utilization of a combination of weak hydrogen-bonding interactions and phase segregation to yield highly thermosensitive supramolecular polymers. <i>Journal of the American Chemical Society</i> , 2005 , 127, 18202-11	16.4	253
50	New infrared transmitting material via inverse vulcanization of elemental sulfur to prepare high refractive index polymers. <i>Advanced Materials</i> , 2014 , 26, 3014-8	24	215
49	Effect of Ideal, Organic Nanoparticles on the Flow Properties of Linear Polymers: Non-Einstein-like Behavior. <i>Macromolecules</i> , 2005 , 38, 8000-8011	5.5	188
48	Multifunctional Nanocomposites with Reduced Viscosity. <i>Macromolecules</i> , 2007 , 40, 9427-9434	5.5	168
47	Nanoparticle concentration profile in polymer-based solar cells. <i>Soft Matter</i> , 2010 , 6, 641-646	3.6	161
46	Dynamic Covalent Polymers via Inverse Vulcanization of Elemental Sulfur for Healable Infrared Optical Materials. <i>ACS Macro Letters</i> , 2015 , 4, 862-866	6.6	130
45	Nanoparticle agglomeration in polymer-based solar cells. <i>Physical Review Letters</i> , 2010 , 105, 168701	7.4	118
44	Inverse vulcanization of elemental sulfur with 1,4-diphenylbutadiyne for cathode materials in LiS batteries. <i>RSC Advances</i> , 2015 , 5, 24718-24722	3.7	114
43	High Refractive Index Copolymers with Improved Thermomechanical Properties via the Inverse Vulcanization of Sulfur and 1,3,5-Triisopropenylbenzene. <i>ACS Macro Letters</i> , 2016 , 5, 1152-1156	6.6	107
42	Inverse vulcanization of elemental sulfur and styrene for polymeric cathodes in Li-S batteries. <i>Journal of Polymer Science Part A</i> , 2017 , 55, 107-116	2.5	101
41	Preparation of Dynamic Covalent Polymers via Inverse Vulcanization of Elemental Sulfur. <i>ACS Macro Letters</i> , 2014 , 3, 1258-1261	6.6	94
40	The importance of rheological behavior in the additive manufacturing technique material extrusion. <i>Journal of Rheology</i> , 2018 , 62, 1549-1561	4.1	88
39	Chalcogenide Hybrid Inorganic/Organic Polymers: Ultrahigh Refractive Index Polymers for Infrared Imaging. <i>ACS Macro Letters</i> , 2017 , 6, 500-504	6.6	83

38	Increased fracture toughness of additively manufactured amorphous thermoplastics via thermal annealing. <i>Polymer</i> , 2018 , 144, 192-204	3.9	83
37	Rheological and heat transfer effects in fused filament fabrication. <i>Journal of Rheology</i> , 2018 , 62, 1097-1107	4.0	66
36	Multivalency in healable supramolecular polymers: the effect of supramolecular cross-link density on the mechanical properties and healing of non-covalent polymer networks. <i>Polymer Chemistry</i> , 2014 , 5, 3680-3688	4.9	65
35	The performance of the hot end in a plasticating 3D printer. <i>Journal of Rheology</i> , 2017 , 61, 229-236	4.1	56
34	Controlled ionic conductivity via tapered block polymer electrolytes. <i>RSC Advances</i> , 2015 , 5, 12597-12604	4.7	53
33	Nanoparticles for dewetting suppression of thin polymer films used in chemical sensors. <i>Journal of Nanoparticle Research</i> , 2007 , 9, 753-763	2.3	46
32	Molecular architecture and rheological characterization of novel intramolecularly crosslinked polystyrene nanoparticles. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006 , 44, 1930-1947	2.6	44
31	Analysis of entry flow to determine elongation flow properties revisited. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1997 , 70, 219-235	2.7	39
30	100th Anniversary of Macromolecular Science Viewpoint: High Refractive Index Polymers from Elemental Sulfur for Infrared Thermal Imaging and Optics. <i>ACS Macro Letters</i> , 2020 , 9, 245-259	6.6	38
29	Functionalized chalcogenide hybrid inorganic/organic polymers (CHIPs) via inverse vulcanization of elemental sulfur and vinylanilines. <i>Polymer Chemistry</i> , 2018 , 9, 2290-2294	4.9	36
28	Targeted surface nanocomplexity: two-dimensional control over the composition, physical properties and anti-biofouling performance of hyperbranched fluoropolymer-poly(ethylene glycol) amphiphilic crosslinked networks. <i>Polymer Chemistry</i> , 2012 , 3, 3121	4.9	34
27	Shear-Induced Solution Crystallization of Poly(3-hexylthiophene) (P3HT). <i>Macromolecules</i> , 2014 , 47, 3343-3349	3.3	30
26	Effect of Chain Stiffness on Nanoparticle Segregation in Polymer/Nanoparticle Blends Near a Substrate. <i>Macromolecular Theory and Simulations</i> , 2012 , 21, 98-105	1.5	30
25	Infrared Fingerprint Engineering: A Molecular-Design Approach to Long-Wave Infrared Transparency with Polymeric Materials. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 17656-17660	16.4	28
24	Development of Polymeric Phase Change Materials On the basis of Diels-Alder Chemistry. <i>Macromolecules</i> , 2010 , 43, 6135-6141	5.5	28
23	Synthesis, self-assembly and reversible healing of supramolecular perfluoropolyethers. <i>Journal of Polymer Science Part A</i> , 2013 , 51, 3598-3606	2.5	27
22	Control of nanoparticle dispersion in thin polymer films. <i>Soft Matter</i> , 2008 , 4, 2441	3.6	27
21	Hierarchical Inorganic/Organic Nanocomposites Possessing Amphiphilic and Morphological Complexities: Influence of Nanofiller Dispersion on Mechanical Performance. <i>Advanced Functional Materials</i> , 2008 , 18, 2733-2744	15.6	25

20	Enthalpy of fusion of poly(3-hexylthiophene) by differential scanning calorimetry. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014 , 52, 1469-1475	2.6	22
19	Three-Phase Morphology of Semicrystalline Polymer Semiconductors: A Quantitative Analysis. <i>ACS Macro Letters</i> , 2015 , 4, 1051-1055	6.6	21
18	Computational fluid dynamics simulation of the melting process in the fused filament fabrication additive manufacturing technique. <i>Additive Manufacturing</i> , 2020 , 33, 101161	6.1	21
17	Calculation of Entropic Terms Governing Nanoparticle Self-Assembly in Polymer Films. <i>Macromolecules</i> , 2008 , 41, 5952-5954	5.5	19
16	Using tapered interfaces to manipulate nanoscale morphologies in ion-doped block polymers. <i>MRS Communications</i> , 2015 , 5, 251-256	2.7	15
15	Dual length morphological model for bulk-heterojunction, polymer-based solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014 , 52, 387-396	2.6	14
14	Correlation between morphology and device performance of pBTTT:PC71BM solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 155, 387-396	6.4	9
13	Infrared Fingerprint Engineering: A Molecular-Design Approach to Long-Wave Infrared Transparency with Polymeric Materials. <i>Angewandte Chemie</i> , 2019 , 131, 17820-17824	3.6	8
12	Three-dimensional liquid surfaces through nanoparticle self-assembly. <i>Soft Matter</i> , 2010 , 6, 1533	3.6	8
11	A comparative study on the morphology of P3HT:PCBM solar cells with the addition of Fe ₃ O ₄ nanoparticles by spin and rod coating methods. <i>Journal of Nanoparticle Research</i> , 2017 , 19, 1	2.3	7
10	The generalized engineering Bernoulli equation (GEBE) and the first and second laws of thermodynamics for viscoelastic fluids. <i>Journal of Rheology</i> , 1996 , 40, 335-346	4.1	7
9	Performance enhancement of polymer-based solar cells by induced phase-separation with silica particles. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 10087-10100	7.1	5
8	Chalcogenide hybrid inorganic/organic polymer resins: Amine functional prepolymers from elemental sulfur. <i>Journal of Polymer Science</i> , 2020 , 58, 35-41	2.4	5
7	Kinetics and Mechanism of Poly(3-hexylthiophene) Crystallization in Solution under Shear Flow. <i>Macromolecules</i> , 2020 , 53, 5795-5804	5.5	4
6	Device performance enhancement of polymer solar cells by nanoparticle self-assembly. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 160, 126-133	6.4	4
5	Effect of aluminum deposition and annealing on polymer-based solar cell performance. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011 , 49, 772-780	2.6	3
4	Postextrusion Heating in Three-Dimensional Printing. <i>Journal of Heat Transfer</i> , 2020 , 142,	1.8	3
3	Brush-Painted Solar Cells from Pre-Crystallized Components in a Nonhalogenated Solvent System Prepared by a Simple Stirring Technique. <i>Macromolecules</i> , 2020 , 53, 8276-8285	5.5	0

- 2 Chalcogenide hybrid inorganic/organic polymer resins: Amine functional prepolymers from elemental sulfur. *Journal of Polymer Science*, **2020**, 58, 35-41 2.4
- 1 Thermal Analysis of Semiconducting Polymer Crystals Free of a Mobile Amorphous Fraction. *Macromolecules*, **2021**, 54, 2155-2161 5.5