Thomas Thurn-Albrecht

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Comb-shaped polymers to enhance hydroxide transport in anion exchange membranes. Energy and Environmental Science, 2012, 5, 7888.	15.6	317
2	Temperature and Molecular Weight Dependent Hierarchical Equilibrium Structures in Semiconducting Poly(3-hexylthiophene). Macromolecules, 2010, 43, 4646-4653.	2.2	207
3	Coherent Kinetic Control over Crystal Orientation in Macroscopic Ensembles of Polymer Nanorods and Nanotubes. Physical Review Letters, 2006, 97, 027801.	2.9	197
4	Direct Visualization of Random Crystallization and Melting in Arrays of Nanometer-Size Polymer Crystals. Physical Review Letters, 2001, 87, 226101.	2.9	187
5	Aggregation and Chain Dynamics in Supramolecular Polymers by Dynamic Rheology: Cluster Formation and Self-Aggregation. Macromolecules, 2010, 43, 10006-10016.	2.2	150
6	High Crystallinity and Nature of Crystalâ^'Crystal Phase Transformations in Regioregular Poly(3-hexylthiophene). Macromolecules, 2010, 43, 9401-9410.	2.2	126
7	Twin Polymerization at Spherical Hard Templates: An Approach to Sizeâ€Adjustable Carbon Hollow Spheres with Micro―or Mesoporous Shells. Angewandte Chemie - International Edition, 2013, 52, 6088-6091.	7.2	123
8	Correlation of charge transport with structural order in highly ordered meltâ€crystallized poly(3â€hexylthiophene) thin films. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 943-951.	2.4	89
9	Thermodynamics of Formation, Reorganization, and Melting of Confined Nanometer-Sized Polymer Crystals. Macromolecules, 2003, 36, 1257-1260.	2.2	83
10	Nanostructure and Rheology of Hydrogen-Bonding Telechelic Polymers in the Melt: From Micellar Liquids and Solids to Supramolecular Gels. Macromolecules, 2014, 47, 2122-2130.	2.2	83
11	Basic principles of static proton low-resolution spin diffusion NMR in nanophase-separated materials with mobility contrast. Solid State Nuclear Magnetic Resonance, 2015, 72, 50-63.	1.5	80
12	The Key Role of Side Chain Linkage in Structure Formation and Mixed Conduction of Ethylene Glycol Substituted Polythiophenes. ACS Applied Materials & Interfaces, 2020, 12, 13029-13039.	4.0	78
13	Influence of Chain Topology on Polymer Dynamics and Crystallization. Investigation of Linear and Cyclic Poly(ε-caprolactone)s by ¹ H Solid-State NMR Methods. Macromolecules, 2011, 44, 2743-2754.	2.2	77
14	What Controls the Structure and the Linear and Nonlinear Rheological Properties of Dense, Dynamic Supramolecular Polymer Networks?. Macromolecules, 2017, 50, 2973-2985.	2.2	77
15	Unveiling the molecular mechanism of self-healing in a telechelic, supramolecular polymer network. Scientific Reports, 2016, 6, 32356.	1.6	67
16	Determination of the Crystallinity of Semicrystalline Poly(3-hexylthiophene) by Means of Wide-Angle X-ray Scattering. Macromolecules, 2013, 46, 9642-9651.	2.2	66
17	Phase Separation in the Melt and Confined Crystallization as the Key to Well-Ordered Microphase Separated Donor–Acceptor Block Copolymers. Macromolecules, 2013, 46, 4403-4410.	2.2	57
18	Interplay between Crystallization and Entanglements in the Amorphous Phase of the Crystal-Fixed Polymer Poly(Ιμ-caprolactone). Macromolecules, 2018, 51, 5831-5841.	2.2	44

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19	Clarifying the Origin of Multiple Melting of Segmented Thermoplastic Polyurethanes by Fast Scanning Calorimetry. Macromolecules, 2017, 50, 7672-7680.	2.2	42
20	Direct observation of prefreezing at the interface melt–solid in polymer crystallization. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17368-17372.	3.3	39
21	Crystallization of Poly(ethylene oxide) with a Well-Defined Point Defect in the Middle of the Polymer Chain. Macromolecules, 2016, 49, 6609-6620.	2.2	39
22	The Underestimated Effect of Intracrystalline Chain Dynamics on the Morphology and Stability of Semicrystalline Polymers. Macromolecules, 2018, 51, 8377-8385.	2.2	36
23	Formation, morphology and internal structure of one-dimensional nanostructures of the ferroelectric polymer P(VDF-TrFE). Polymer, 2013, 54, 2737-2744.	1.8	35
24	Interface-Induced Crystallization of Polycaprolactone on Graphite via First-Order Prewetting of the Crystalline Phase. Macromolecules, 2018, 51, 189-194.	2.2	31
25	Intracrystalline Jump Motion in Poly(ethylene oxide) Lamellae of Variable Thickness: A Comparison of NMR Methods. Macromolecules, 2017, 50, 3890-3902.	2.2	28
26	Poly(ε aprolactone)–poly(isobutylene): A crystallizing, hydrogenâ€bonded pseudoâ€block copolymer. Journal of Polymer Science Part A, 2011, 49, 3404-3416.	2.5	27
27	Influence of Fullerene Grafting Density on Structure, Dynamics, and Charge Transport in P3HT- <i>b</i> -PPC ₆₁ BM Block Copolymers. Macromolecules, 2016, 49, 1637-1647.	2.2	27
28	Opposing Phaseâ€ S egregation and Hydrogenâ€Bonding Forces in Supramolecular Polymers. Angewandte Chemie - International Edition, 2017, 56, 13016-13020.	7.2	27
29	Competition between crystal growth and intracrystalline chain diffusion determines the lamellar thickness in semicrystalline polymers. Nature Communications, 2022, 13, 119.	5.8	26
30	Structure–Property Relationships of Microphase-Separated Metallosupramolecular Polymers. Macromolecules, 2020, 53, 5068-5084.	2.2	25
31	Dynamics and healing behavior of metallosupramolecular polymers. Science Advances, 2021, 7, .	4.7	25
32	NMR study of interphase structure in layered polymer morphologies with mobility contrast: disorder and confinement effects vs. dynamic heterogeneities. Colloid and Polymer Science, 2014, 292, 1825-1839.	1.0	22
33	Crystallinity of poly(3-hexylthiophene) in thin films determined by fast scanning calorimetry. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1791-1801.	2.4	22
34	Surface induced orientation and vertically layered morphology in thin films of poly(3-hexylthiophene) crystallized from the melt. Journal of Materials Research, 2017, 32, 1957-1968.	1.2	22
35	Hierarchical structure of polybutene-1 in crystal blocks resulting from the form II to I solid-to-solid transition as revealed by small-angle X-ray scattering. Polymer, 2020, 195, 122425.	1.8	22
36	Donor–acceptor block copolymers carrying pendant PC ₇₁ BM fullerenes with an ordered nanoscale morphology. Polymer Chemistry, 2015, 6, 813-826.	1.9	21

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37	Phenomenological Theory of First-Order Prefreezing. Journal of Physical Chemistry Letters, 2019, 10, 1942-1946.	2.1	21
38	The effect of intracrystalline chain dynamics on melting and reorganization during heating in semicrystalline polymers. Polymer, 2020, 196, 122441.	1.8	21
39	Modular Synthesis and Structure Analysis of P3HT- <i>b</i> -PPBI Donor–Acceptor Diblock Copolymers. Macromolecules, 2018, 51, 7044-7051.	2.2	18
40	Effect of Substrate Interaction on Thermodynamics of Prefreezing. Macromolecules, 2019, 52, 9140-9148.	2.2	17
41	Bulk Enthalpy of Melting of PolyÂ(<scp>l</scp> ″actic acid) (PLLA) Determined by Fast Scanning Chip Calorimetry. Macromolecular Rapid Communications, 2022, 43, e2200148.	2.0	16
42	Interface and Confinement Induced Order and Orientation in Thin Films of Poly(ϵ-caprolactone). Macromolecules, 2016, 49, 3442-3451.	2.2	13
43	Semicrystalline Block Copolymers in Rigid Confining Nanopores. Macromolecules, 2017, 50, 8637-8646.	2.2	13
44	Regioregular Polymer Analogous Thionation of Naphthalene Diimide–Bithiophene Copolymers. Macromolecules, 2018, 51, 984-991.	2.2	13
45	Elucidating the Effect of Interfacial Interactions on Crystal Orientations in Thin Films of Polythiophenes. Macromolecules, 2021, 54, 5429-5439.	2.2	13
46	Digitally Tuned Multidirectional All-Polyethylene Composites via Controlled 1D Nanostructure Formation during Extrusion-Based 3D Printing. ACS Applied Polymer Materials, 2021, 3, 1675-1686.	2.0	11
47	Independent Variation of Transition Temperature and Prefrozen Layer Thickness at the Prefreezing Transition. Journal of Physical Chemistry C, 2020, 124, 26184-26192.	1.5	9
48	Asymmetric Co-unit Inclusion in Statistical Copolyesters. Macromolecules, 2021, 54, 835-845.	2.2	9
49	Investigation of the different stable states of the cantilever oscillation in an atomic force microscope. Nanotechnology, 2012, 23, 245702.	1.3	8
50	Manipulating Semicrystalline Polymers in Confinement. Journal of Physical Chemistry B, 2017, 121, 7723-7728.	1.2	8
51	The Controlled Synthesis of Carbon Tubes and Rods by Template-Assisted Twin Polymerization. Advances in Materials Science and Engineering, 2013, 2013, 1-8.	1.0	7
52	Temperature-dependent IR-transition moment orientational analysis applied to thin supported films of poly-ε-caprolactone. Soft Matter, 2017, 13, 9211-9219.	1.2	7
53	Heterogeneous Crystal Nucleation from the Melt in Polyethylene Oxide Droplets on Graphite: Kinetics and Microscopic Structure. Crystals, 2021, 11, 924.	1.0	7
54	Molecular Order in Cold Drawn, Strain-Recrystallized Poly(ε-caprolactone). Macromolecules, 2017, 50, 1056-1065.	2.2	5

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55	Influence of ï‰-Bromo Substitution on Structure and Optoelectronic Properties of Homopolymers and Gradient Copolymers of 3-Hexylthiophene. Macromolecules, 2020, 53, 2474-2484.	2.2	5
56	Opposing Phaseâ€Segregation and Hydrogenâ€Bonding Forces in Supramolecular Polymers. Angewandte Chemie, 2017, 129, 13196-13200.	1.6	4
57	Intracrystalline Dynamics in Oligomerâ€Diluted Poly(Ethylene Oxide). Macromolecular Chemistry and Physics, 2020, 221, 1900393.	1.1	3
58	Fiber ―and Tube ―Formation by Melt Infiltration of Block Copolymers into Al ₂ O ₃ â€Pores. Macromolecular Symposia, 2010, 293, 58-62.	0.4	2
59	Anisotropic domain orientation and local, reversible polarisation switching in textured ferroelectric polymer nanofibers. , 2008, , .		0