Jun Xu

List of Publications by Year in descending order

130 papers	4,374 citations	136740 32 h-index	123241 61 g-index
132 all docs	132 docs citations	132 times ranked	4593 citing authors

#	Article	IF	Citations
1	Growth and Strain Modulation of GeSn Alloys for Photonic and Electronic Applications. Nanomaterials, 2022, 12, 981.	1.9	16
2	Quantitative contribution of each component to secondary nucleation in the blends of homopolymer and its random copolymers. Polymer, 2022, 245, 124735.	1.8	2
3	Two-step heat fusion kinetics and mechanical performance of thermoplastic interfaces. Scientific Reports, 2022, 12, 5701.	1.6	1
4	Primary Nucleation in Metastable Solutions of Poly(3-hexylthiophene). Macromolecules, 2022, 55, 3325-3334.	2.2	7
5	Molecular Insight into the Toughness of Polyureas: A Hybrid All-Atom/Coarse-Grained Molecular Dynamics Study. Macromolecules, 2022, 55, 3020-3029.	2.2	10
6	Editorial on the Special Topic â€œPolymer Crystallizationâ€• Crystals, 2022, 12, 618.	1.0	0
7	Polymer Crystallization with Configurable Birefringence in Double Emulsion Droplets. Macromolecules, 2022, 55, 3974-3985.	2.2	5
8	Atomic-scale simulation of hugoniot relations and energy dissipation of polyurea under high-speed shock. Engineering Computations, 2021, 38, 1209-1225.	0.7	6
9	Cross-linked polyurethane with dynamic phenol-carbamate bonds: properties affected by the chemical structure of isocyanate. Polymer Chemistry, 2021, 12, 2421-2432.	1.9	26
10	Highly stretchable and strong poly(butylene maleate) elastomersviametalâ€“ligand interactions. Polymer Chemistry, 2021, 12, 893-902.	1.9	2
11	Secondary nucleation in polymer crystallization: A kinetic view. Polymer Crystallization, 2021, 4, e10173.	0.5	13
12	Concepts of Nucleation in Polymer Crystallization. Crystals, 2021, 11, 304.	1.0	38
13	Revealing the role of hydrogen bonding in polyurea with multiscale simulations. Molecular Simulation, 2021, 47, 1258-1272.	0.9	9
14	Controlled Switching from the Growth of Monolamellar Polymer Crystals to the Formation of Stacks of Uniquely Oriented Lamellae. Macromolecules, 2021, 54, 8135-8142.	2.2	1
15	Melting and Annealing Peak Temperatures of Poly(butylene succinate) on the Same Hoffman-Weeks Plot Parallel to Tm=Tc Line. Chinese Journal of Polymer Science (English Edition), 2021, 39, 745.	2.0	2
16	Effects of Nonhydroxyl Oxygen Heteroatoms in Diethylene Glycols on the Properties of 2,5-Furandicarboxylic Acid-Based Polyesters. Biomacromolecules, 2021, 22, 4823-4832.	2.6	12
17	A nucleation mechanism leading to stacking of lamellar crystals in polymer thin films. Polymer International, 2020, 69, 1058-1065.	1.6	10
18	Reprocessable Cross-Linked Polyurethane with Dynamic and Tunable Phenolâ€“Carbamate Network. ACS Sustainable Chemistry and Engineering, 2020, 8, 1207-1218.	3.2	86

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19	Highly Filled Glycerol/Graphite Suspensions as Fluidic Soft Sensors and Their Responsive Mechanism to Shear. Advanced Materials Technologies, 2020, 5, 2000508.	3.0	2
20	Two new approaches based on dynamic carboxylâ€“hydroxyl or hydroxylâ€“carboxyl transformation for high molecular weight poly(butylene maleate). Polymer Chemistry, 2020, 11, 5884-5892.	1.9	8
21	Estimation of the Size of Critical Secondary Nuclei of Melt-Grown Poly(<scp>l</scp>-lactide) Lamellar Crystals. Macromolecules, 2020, 53, 3482-3492.	2.2	15
22	Critical Size of Secondary Nuclei Determined via Nucleation Theorem Reveals Selective Nucleation in Three-Component Co-Crystals. Entropy, 2019, 21, 1032.	1.1	2
23	Processing Pathways Decide Polymer Properties at the Molecular Level. Macromolecules, 2019, 52, 7146-7156.	2.2	105
24	Solvent-free thermo-reversible and self-healable crosslinked polyurethane with dynamic covalent networks based on phenol-carbamate bonds. Polymer, 2019, 181, 121788.	1.8	50
25	Determination of the Critical Size of Secondary Nuclei on the Lateral Growth Front of Lamellar Polymer Crystals. Macromolecules, 2019, 52, 7439-7447.	2.2	15
26	Solvent-polymer guest exchange in a carbamazepine inclusion complex: structure, kinetics and implication for guest selection. CrystEngComm, 2019, 21, 2164-2173.	1.3	5
27	Study of the Crystal Growth Mechanism and Critical Secondary Nucleus Size of Poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.4	11
28	A Well-defined Hierarchical Hydrogen Bonding Strategy to Polyureas with Simultaneously Improved Strength and Toughness. Chinese Journal of Polymer Science (English Edition), 2019, 37, 1257-1266.	2.0	18
29	Synthesis, Properties of Biodegradable Poly(Butylene Succinate-co-Butylene 2-Methylsuccinate) and Application for Sustainable Release. Materials, 2019, 12, 1507.	1.3	23
30	Effects of Diisocyanate Structure and Disulfide Chain Extender on Hard Segmental Packing and Self-Healing Property of Polyurea Elastomers. Polymers, 2019, 11, 838.	2.0	32
31	Thermo-sensitive micelles based on amphiphilic poly(butylene 2-methylsuccinate)-poly(ethylene glycol) multi-block copolyesters as the pesticide carriers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 575, 84-93.	2.3	16
32	Study on the Photodegradation Stability of Poly(butylene Succinate-co-butylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Td (A	0.9	10
33	Controlling the Growth of Stacks of Correlated Lamellar Crystals of a Block Copolymer. Macromolecules, 2019, 52, 9665-9671.	2.2	11
34	Achieving high dielectric permittivity, high breakdown strength and high efficiency by cross-linking of poly(vinylidene fluoride)/BaTiO3 nanocomposites. Composites Science and Technology, 2019, 169, 142-150.	3.8	42
35	Industrializable and sustainable approach for preparing extended-chain crystals of biodegradable poly(butylene succinate) and their applications. Polymer, 2019, 160, 93-98.	1.8	9
36	A multi-scale investigation on effects of hydrogen bonding on micro-structure and macro-properties in a polyurea. Polymer, 2018, 145, 261-271.	1.8	58

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37	Improved dielectric and energy storage properties of poly(vinyl alcohol) nanocomposites by strengthening interfacial hydrogen-bonding interaction. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 548, 179-190.	2.3	21
38	Preparation and Characterization of Poly(butylene succinate)/Polylactide Blends for Fused Deposition Modeling 3D Printing. ACS Omega, 2018, 3, 14309-14317.	1.6	65
39	Design of a self-healing cross-linked polyurea with dynamic cross-links based on disulfide bonds and hydrogen bonding. European Polymer Journal, 2018, 107, 249-257.	2.6	97
40	A novel vacuum-assisted method for fabricating flexible polyimide foams from 3,3â€²,4,4â€²-oxydiphthalic anhydride/4,4â€²-oxydianiline. High Performance Polymers, 2017, 29, 272-278.	0.8	4
41	Thermo-oxidative degradation of Nylon 1010 films: Colorimetric evaluation and its correlation with material properties. Chinese Chemical Letters, 2017, 28, 949-954.	4.8	13
42	Isomorphism in ternary complex: Poly(ethylene oxide), urea and thiourea. Chinese Chemical Letters, 2017, 28, 888-892.	4.8	6
43	A facile hydrothermal preparation for phase change materials microcapsules with a pliable self-recovering shell and study on its thermal energy storage properties. Powder Technology, 2017, 312, 144-151.	2.1	25
44	Synthesis, physical properties and photodegradation of functional poly(butylene succinate) covalently linking UV stabilizing moieties in molecular chains. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 524, 160-168.	2.3	12
45	Monodisperse erythrocyte-like and hollow erythrocyte-like silica nanoparticles prepared by a simple template-free and surfactant-free solâ€“gel route. Journal of Sol-Gel Science and Technology, 2017, 81, 367-371.	1.1	2
46	Increased dielectric permittivity of poly(vinylidene fluoride-co-chlorotrifluoroethylene) nanocomposites by coating BaTiO3 with functional groups owning high bond dipole moment. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 529, 560-570.	2.3	22
47	Crystalline inclusion complexes formed between the drug diflunisal and block copolymers. Chinese Chemical Letters, 2017, 28, 1268-1275.	4.8	17
48	Synthesis and Properties of Biobased Multiblock Polyesters Containing Poly(2,5-furandimethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 56, 3937-3946.	1.8	33
49	How temperatures affect the number of dislocations in polymer single crystals. Chinese Journal of Polymer Science (English Edition), 2017, 35, 78-86.	2.0	9
50	Drug-polymer inclusion complex as a new pharmaceutical solid form. Chinese Chemical Letters, 2017, 28, 2099-2104.	4.8	10
51	Orientation of polymer chains in spherulites of poly(ethylene oxide)-urea inclusion compounds. Polymer, 2017, 130, 209-217.	1.8	4
52	Insights from polymer crystallization: Chirality, recognition and competition. Chinese Chemical Letters, 2017, 28, 2092-2098.	4.8	24
53	Study on melting and recrystallization of poly(butylene succinate) lamellar crystals via step heating differential scanning calorimetry. Chinese Journal of Polymer Science (English Edition), 2017, 35, 1552-1560.	2.0	10
54	Interplay between crystallization and the Dielsâ€“Alder reaction in biobased multiblock copolyesters possessing dynamic covalent bonds. Polymer Chemistry, 2017, 8, 4280-4289.	1.9	24

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55	Copolymerization with Polyether Segments Improves the Mechanical Properties of Biodegradable Polyesters. ACS Omega, 2017, 2, 2639-2648.	1.6	22
56	Preparation of Poly(butylene succinate) Crystals with Exceptionally High Melting Point and Crystallinity from Its Inclusion Complex. Macromolecules, 2017, 50, 5425-5433.	2.2	25
57	Dissolution Behavior of the Crystalline Inclusion Complex Formed by the Drug Diflunisal and Poly(îµ-caprolactone). Crystal Growth and Design, 2017, 17, 355-362.	1.4	15
58	A Review on Polymer Crystallization Theories. Crystals, 2017, 7, 4.	1.0	106
59	Organization of Twisting Lamellar Crystals in Birefringent Banded Polymer Spherulites: A Mini-Review. Crystals, 2017, 7, 241.	1.0	29
60	The Kinetics Of Melting And Recrystallization Using Normal Differential Scanning Calorimeter. , 2017, , .		0
61	The effect of polymer-substrate interaction on the nucleation property: Comparing study of graphene and hexagonal boron nitride Nanosheets. Chinese Journal of Polymer Science (English Edition), 2016, 34, 1021-1031.	2.0	7
62	Rheological behavior of branch modified poly(butylene succinate) by butyl glycidyl ether. AIP Conference Proceedings, 2016, , .	0.3	0
63	Drug Molecule Diflunisal Forms Crystalline Inclusion Complexes with Multiple Types of Linear Polymers. Crystal Growth and Design, 2016, 16, 1181-1186.	1.4	16
64	Stabilization of Nuclei of Lamellar Polymer Crystals: Insights from a Comparison of the Hoffmanâ€“Weeks Line with the Crystallization Line. Macromolecules, 2016, 49, 2206-2215.	2.2	31
65	Detection of long-chain branches in polyethylene via rheological measurements. Chinese Chemical Letters, 2016, 27, 588-592.	4.8	8
66	Photodegradation behavior of poly(butylene succinate-co-butylene adipate)/ZnO nanocomposites. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 489, 173-181.	2.3	31
67	Poly(butylene succinate) (PBS)/ionic liquid plasticized starch blends: Preparation, characterization, and properties. Starch/Staerke, 2015, 67, 802-809.	1.1	36
68	High-Temperature Stability of Dewetting-Induced Thin Polyethylene Filaments. Macromolecules, 2015, 48, 1518-1523.	2.2	14
69	Polymorphic Behavior and Enzymatic Degradation of Poly(butylene adipate) in the Presence of Hexagonal Boron Nitride Nanosheets. Industrial & Engineering Chemistry Research, 2015, 54, 1832-1841.	1.8	34
70	How to regulate the isothermal growth rate of polymer spherulite without changing its molecular composition?. CrystEngComm, 2015, 17, 6467-6470.	1.3	9
71	Simulation of secondary nucleation of polymer crystallization via a model of microscopic kinetics. Chinese Chemical Letters, 2015, 26, 1105-1108.	4.8	13
72	Effect of SiO₂ content on performance of polypropylene separator for lithiumâ€ion batteries. Journal of Applied Polymer Science, 2014, 131, .	1.3	8

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73	Co-crystal formation between poly(ethylene glycol) and a small molecular drug griseofulvin. Chemical Communications, 2014, 50, 6375-6378.	2.2	38
74	Prominent Nucleating Effect of Finely Dispersed Hydroxyl-Functional Hexagonal Boron Nitride on Biodegradable Poly(butylene succinate). Industrial & Engineering Chemistry Research, 2014, 53, 4689-4696.	1.8	29
75	Aliphatic copolyester with isomorphism in limited composition range. Polymer, 2014, 55, 5811-5820.	1.8	21
76	Morphology and crystalline structure of inclusion compounds formed between poly(ethylene glycol) and urea. Chinese Journal of Polymer Science (English Edition), 2014, 32, 1234-1242.	2.0	9
77	Preparation and performance of silica/polypropylene composite separator for lithium-ion batteries. Journal of Materials Science, 2014, 49, 6961-6966.	1.7	37
78	Correlating Polymer Crystals via Self-Induced Nucleation. Physical Review Letters, 2014, 112, 237801.	2.9	36
79	Effect of silica nanoparticles/poly(vinylidene fluoride-hexafluoropropylene) coated layers on the performance of polypropylene separator for lithium-ion batteries. Journal of Energy Chemistry, 2014, 23, 582-586.	7.1	25
80	Stretch-induced bidirectional polymorphic transformation of crystals in poly(butylene adipate). Polymer, 2014, 55, 3054-3061.	1.8	30
81	Effect of Al2O3/SiO2 composite ceramic layers on performance of polypropylene separator for lithium-ion batteries. Ceramics International, 2014, 40, 14105-14110.	2.3	60
82	Melting behavior of inclusion complex formed between polyethylene glycol oligomer and urea. Polymer, 2013, 54, 3385-3391.	1.8	17
83	Role of Poly(butylene fumarate) on Crystallization Behavior of Poly(butylene succinate). Industrial & Engineering Chemistry Research, 2013, 52, 10682-10689.	1.8	47
84	Synthesis and characterizations of attapulgite reinforced branched poly(butylene succinate) nanocomposites. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 436, 26-33.	2.3	33
85	Improved the thermal and mechanical properties of poly(butylene succinate-co-butylene adipate) by forming nanocomposites with attapulgite. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 421, 109-117.	2.3	37
86	Thermal and dynamic mechanical properties of attapulgite reinforced poly(butylene succinate-co -1,2-) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.3	4
87	PREPARATION OF ELASTIC POLY(R-3-HYDROXYBUTYRATE-<I>co</I>-R-3-HYDROXYHEXANOATE) FIBER WITH HIGH STRENGTH AND REGULATION OF ITS MECHANICAL PROPERTIES. Acta Polymerica Sinica, 2013, 012, 1465-1471.	0.0	0
88	PREPARATION OF MONODISPERSE CROSS-LINKED POLYSTYRENE MICROSPHERES BY COMBINING DISPERSION POLYMERIZATION WITH HYDROTHERMAL PROCESS. Acta Polymerica Sinica, 2013, 013, 81-87.	0.0	0
89	Isomorphism in Poly(butylene succinate-<i>co</i>-butylene fumarate) and Its Application as Polymeric Nucleating Agent for Poly(butylene succinate). Macromolecules, 2012, 45, 5667-5675.	2.2	129
90	Anisotropic surface effects on the formation of chiral morphologies of nanomaterials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 609-633.	1.0	28

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91	MICROSCOPIC STRUCTURE AND MECHANICAL PROPERTIES OF POLYLACTIDE/ATTAPULGITE NANOCOMPOSITES. Acta Polymerica Sinica, 2012, 012, 83-88.	0.0	5
92	Chirality Transfer from Molecular to Morphological Scales in Quasi-One-Dimensional Nanomaterials: A Continuum Model. Journal of Computational and Theoretical Nanoscience, 2011, 8, 1278-1287.	0.4	15
93	Formation of ring-banded spherulites of Î± and Î² modifications in Poly(butylene adipate). Polymer, 2011, 52, 4619-4630.	1.8	72
94	On the Circular Birefringence of Polycrystalline Polymers: Polylactide. Journal of the American Chemical Society, 2011, 133, 13848-13851.	6.6	39
95	Revealing formation process of microcapsules during in situ polymerization via confocal laser scanning fluorescence microscopy. Colloid and Polymer Science, 2011, 289, 1719-1728.	1.0	9
96	Rheology, crystallization behaviors, and thermal stabilities of poly(butylene succinate)/pristine multiwalled carbon nanotube composites obtained by melt compounding. Journal of Applied Polymer Science, 2011, 121, 59-67.	1.3	36
97	Poly(butylene succinate) and its copolymers: Research, development and industrialization. Biotechnology Journal, 2010, 5, 1149-1163.	1.8	579
98	Synthesis and characterizations of branched poly(butylene succinate) copolymers with 1,2â€octanediol segments. Journal of Applied Polymer Science, 2010, 117, 2538-2544.	1.3	13
99	Microbial Succinic Acid, Its Polymer Poly(butylene succinate), and Applications. Microbiology Monographs, 2010, , 347-388.	0.3	83
100	Different thermal behaviors of microbial polyesters poly(3-hydroxybutyrate-co-3-hydroxyvalerate-co-3-hydroxyhexanoate) and poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Polymer, 2010, 51, 6037-6046.	1.8	34
101	Surface Stress Effects on the Bending Direction and Twisting Chirality of Lamellar Crystals of Chiral Polymer. Macromolecules, 2010, 43, 5762-5770.	2.2	94
102	SYNTHESIS AND CRYSTALLIZATION BEHAVIOR OF BIODEGRADABLE POLY(BUTYLENE) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td (SU	0.0	8
103	Janus-like polymer particles prepared via internal phase separation from emulsified polymer/oil droplets. Polymer, 2009, 50, 3361-3369.	1.8	76
104	Left- or Right-Handed Lamellar Twists in Poly[(R)-3-hydroxyvalerate] Banded Spherulite: Dependence on Growth Axis. Macromolecules, 2009, 42, 694-701.	2.2	87
105	PREPARATION OF PHASE CHANGE MATERIAL WAX/P(MMA-<I>co</I>-AA) CORE-SHELL MICROCAPSULES. Acta Polymerica Sinica, 2009, 009, 1154-1156.	0.0	8
106	Synthesis and characterization of biodegradable poly(butylene succinateâ€coâ€propylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.3	72
107	Reversibly Switchable Double-Responsive Block Copolymer Brushes. Macromolecular Rapid Communications, 2007, 28, 828-833.	2.0	29
108	Imaging of nonlinear optical response in biopolyesters via second harmonic generation microscopy and its dependence on the crystalline structures. Polymer, 2007, 48, 348-355.	1.8	13

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109	Conformation transition and molecular mobility of isolated poly(ethylene oxide) chains confined in urea nanochannels. Polymer, 2007, 48, 7364-7373.	1.8	30
110	Crystallization kinetics and morphology of biodegradable poly(butylene succinate-co-propylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70	2.4	60
111	Organization process of the hierarchical structures in microbially synthesized polyhydroxyalkanoates. Current Applied Physics, 2007, 7, e41-e44.	1.1	2
112	Reconstruction of complementary images in second harmonic generation microscopy. Optics Express, 2006, 14, 4727.	1.7	24
113	Monte Carlo simulation of diffusion effects on chain-extension reactions. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 2902-2911.	2.4	4
114	Study diffusion effects on chain extension reactions based on the reptation theory. Polymer, 2006, 47, 3696-3704.	1.8	9
115	Encapsulation of Drug Reservoirs in Fibers by Emulsion Electrospinning:â€‰ Morphology Characterization and Preliminary Release Assessment. Biomacromolecules, 2006, 7, 2327-2330.	2.6	299
116	Development of dispersed phase size and its dependence on processing parameters. Journal of Applied Polymer Science, 2006, 102, 3201-3211.	1.3	13
117	THE EFFECTS OF SHEAR HISTORY ON CRYSTALLIZATION OF POLYAMIDES. Acta Polymerica Sinica, 2006, 006, 484-488.	0.0	1
118	Observation of banded spherulites in pure poly(l-lactide) and its miscible blends with amorphous polymers. Polymer, 2005, 46, 9176-9185.	1.8	133
119	Monte Carlo simulation of chain extension using bisoxazolines as coupling agent. Polymer, 2005, 46, 11918-11926.	1.8	7
120	A mathematical model for regulating monomer composition of the microbially synthesized polyhydroxyalkanoate copolymers. Biotechnology and Bioengineering, 2005, 90, 821-829.	1.7	8
121	Carboxyl Terminated Polymer Chain Extension Using a Bisoxazoline Coupling Agent: Monte Carlo Simulation. Macromolecular Theory and Simulations, 2005, 14, 586-595.	0.6	9
122	Chain extension of PA1010 by reactive extrusion by diepoxide 711 and diepoxide TDE85 as chain extenders. Journal of Applied Polymer Science, 2004, 94, 2347-2355.	1.3	32
123	Deep Quenching: A Special Method to Study Stress-Induced Crystallization and Control the Lamellar Growth Direction. Macromolecular Rapid Communications, 2004, 25, 1549-1553.	2.0	0
124	Direct AFM Observation of Crystal Twisting and Organization in Banded Spherulites of Chiral Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Macromolecules, 2004, 37, 4118-4123.	2.2	159
125	Terraces on banded spherulites of polyhydroxyalkanoates. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 2128-2134.	2.4	27
126	Surface Properties of Poly(3-hydroxybutyrate-co-3- hydroxyvalerate) Banded Spherulites Studied by Atomic Force Microscopy and Time-of-Flight Secondary Ion Mass Spectrometry. Langmuir, 2003, 19, 7417-7422.	1.6	32

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127	New Growth Features of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) Banded Spherulites. Polymer Journal, 2003, 35, 460-464.	1.3	5
128	In situ FTIR study on melting and crystallization of polyhydroxyalkanoates. Polymer, 2002, 43, 6893-6899.	1.8	185
129	Synthesis and Characterizations of Poly(Butylene Succinate) Copolyester. Advanced Materials Research, 0, 1015, 381-384.	0.3	0
130	In Situ Dissolution and Swelling of Confined Lamellar Polymer Crystals through Exposure to Humid Air. Macromolecules, 0, , .	2.2	2