

Hideki Abe

List of Publications by Year in Descending Order

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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.

160
papers

7,963
citations

46
h-index

85
g-index

164
ext. papers

8,467
ext. citations

5.2
avg. IF

5.8
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 160 | Substituent Effects on Thermal and Mechanical Properties of Resorcinol-Based Semiaromatic Polyesters. <i>Macromolecular Chemistry and Physics</i> , 2022 , 223, 2100355 | 2.6 | |
| 159 | Purification and characterization of an enzyme that degrades polyamide 4 into gamma-aminobutyric acid oligomers from <i>Pseudoxanthomonas</i> sp. TN-N1. <i>Polymer Degradation and Stability</i> , 2022 , 197, 109868 | 4.7 | 0 |
| 158 | Poly(3-mercapto-2-methylpropionate), a Novel β -Methylated Bio-Polythioester with Rubber-like Elasticity, and Its Copolymer with 3-hydroxybutyrate: Biosynthesis and Characterization. <i>Bioengineering</i> , 2022 , 9, 228 | 5.3 | 0 |
| 157 | ENZYMATIC DEGRADATION 2022 , 517-540 | | |
| 156 | Superior thermal stability and fast crystallization behavior of a novel, biodegradable β -methylated bacterial polyester. <i>NPG Asia Materials</i> , 2021 , 13, | 10.3 | 4 |
| 155 | Copolymers incorporated with β -substituted acrylate synthesized by organo-catalyzed group-transfer polymerization. <i>Polymer Journal</i> , 2021 , 53, 989-999 | 2.7 | 2 |
| 154 | Thermal degradation behavior of poly[(R)-3-hydroxybutyrate-co-4-hydroxybutyrate]. <i>Polymer Degradation and Stability</i> , 2021 , 183, 109460 | 4.7 | 4 |
| 153 | Miscibility and enzymatic degradability of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)-based polyester blends by PHB depolymerase and lipase. <i>Polymer Degradation and Stability</i> , 2021 , 192, 109692 | 4.7 | 2 |
| 152 | Improving thermal and mechanical properties of biomass-based polymers using structurally ordered polyesters from ricinoleic acid and 4-hydroxycinnamic acids.. <i>RSC Advances</i> , 2020 , 10, 36562-36570 | 3.7 | 6 |
| 151 | Kinetic modeling study of the group-transfer polymerization of alkyl crotonates using a silicon Lewis acid catalyst. <i>Polymer Chemistry</i> , 2020 , 11, 5981-5991 | 4.9 | 4 |
| 150 | Effect of Disyndiotacticity on the Glass Transition Temperature of Poly(ethyl crotonate)s Synthesized by Group-Transfer Polymerization Catalyzed by Organic Acids. <i>Macromolecules</i> , 2020 , 53, 7759-7766 | 5.5 | 3 |
| 149 | Group-Transfer Polymerization of Various Crotonates Using Organic Acid Catalysts. <i>Macromolecules</i> , 2019 , 52, 4052-4058 | 5.5 | 11 |
| 148 | Enhanced expression of a recombinant multicopper oxidase, CueO, from <i>Escherichia coli</i> and its laccase activity towards aromatic substrates. <i>Polymer Degradation and Stability</i> , 2019 , 164, 1-8 | 4.7 | 4 |
| 147 | Biosynthesis and characterization of co and ter-polyesters of polyhydroxyalkanoates containing high monomeric fractions of 4-hydroxybutyrate and 5-hydroxyvalerate via a novel PHA synthase. <i>Polymer Degradation and Stability</i> , 2019 , 163, 122-135 | 4.7 | 4 |
| 146 | Biosynthesis of novel lactate-based polymers containing medium-chain-length 3-hydroxyalkanoates by recombinant <i>Escherichia coli</i> strains from glucose. <i>Journal of Bioscience and Bioengineering</i> , 2019 , 128, 191-197 | 3.3 | 7 |
| 145 | Studies on thermo-mechanical and thermal degradation properties of bio-based polyurethanes synthesized from vanillin-derived diol and lysine diisocyanate. <i>Polymer Degradation and Stability</i> , 2019 , 167, 283-291 | 4.7 | 8 |
| 144 | Unique acrylic resins with aromatic side chains by homopolymerization of cinnamic monomers. <i>Communications Chemistry</i> , 2019 , 2, | 6.3 | 10 |

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| 143 | Synthesis and Characterization of Biobased Polyesters Containing Anthraquinones Derived from Gallic Acid. <i>Biomacromolecules</i> , 2019 , 20, 318-325 | 6.9 | 8 |
| 142 | A novel and wide substrate specific polyhydroxyalkanoate (PHA) synthase from unculturable bacteria found in mangrove soil. <i>Journal of Polymer Research</i> , 2018 , 25, 1 | 2.7 | 12 |
| 141 | Development of a H3PW12O40/CeO2 catalyst for bulk ring-opening polymerization of a cyclic carbonate. <i>Green Chemistry</i> , 2018 , 20, 4995-5006 | 10 | 14 |
| 140 | Real-Time Observation of Enzymatic Polyhydroxyalkanoate Polymerization Using High-Speed Scanning Atomic Force Microscopy. <i>ACS Omega</i> , 2017 , 2, 181-185 | 3.9 | 7 |
| 139 | Fractionation and thermal characteristics of biosynthesized polyhydroxyalkanoates bearing aromatic groups as side chains. <i>Polymer Journal</i> , 2017 , 49, 557-565 | 2.7 | 15 |
| 138 | Biosynthesis and characterization of novel polyhydroxyalkanoate copolymers consisting of 3-hydroxy-2-methylbutyrate and 3-hydroxyhexanoate. <i>Journal of Polymer Research</i> , 2017 , 24, 1 | 2.7 | 6 |
| 137 | Uniformity of Monomer Composition and Material Properties of Medium-Chain-Length Polyhydroxyalkanoates Biosynthesized from Pure and Crude Fatty Acids. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 6905-6911 | 8.3 | 26 |
| 136 | Carboxy-terminal modification of polyhydroxyalkanoate (PHA) via alcoholysis reaction catalyzed by Class IV PHA synthase. <i>Polymer Degradation and Stability</i> , 2015 , 117, 90-96 | 4.7 | 13 |
| 135 | Molecular weight-dependent degradation of D-lactate-containing polyesters by polyhydroxyalkanoate depolymerases from <i>Variovorax</i> sp. C34 and <i>Alcaligenes faecalis</i> T1. <i>Applied Microbiology and Biotechnology</i> , 2015 , 99, 9555-63 | 5.7 | 9 |
| 134 | Biosynthesis and characterization of novel poly(3-hydroxybutyrate-co-3-hydroxy-2-methylbutyrate): thermal behavior associated with carbon methylation. <i>RSC Advances</i> , 2015 , 5, 58679-58685 | 3.7 | 14 |
| 133 | A common active site of polyhydroxyalkanoate synthase from <i>Bacillus cereus</i> YB-4 is involved in polymerization and alcoholysis reactions. <i>Applied Microbiology and Biotechnology</i> , 2015 , 99, 4701-11 | 5.7 | 7 |
| 132 | Substrate stereoselectivity of poly(Asp) hydrolase-1 capable of cleaving amide bonds as revealed by investigation of enzymatic hydrolysis of stereoisomeric tri(Asp)s. <i>AMB Express</i> , 2015 , 5, 118 | 4.1 | 1 |
| 131 | Crystallization and melting behavior of partially miscible six-armed poly(l-lactic acid)/poly(3-hydroxybutyrate-co-3-hydroxyvalerate) blends. <i>Journal of Applied Polymer Science</i> , 2015 , 132, n/a-n/a | 2.9 | 1 |
| 130 | Crystallization and mechanical behavior of covalent functionalized carbon nanotube/poly(3-hydroxybutyrate-co-3-hydroxyvalerate) nanocomposites. <i>Journal of Applied Polymer Science</i> , 2015 , 132, n/a-n/a | 2.9 | 6 |
| 129 | Morphological changes in poly(l-lactide)/poly(3-hydroxybutyrate-co-3-hydroxyvalerate) blends induced by different miscibility. <i>Polymer</i> , 2015 , 66, 259-267 | 3.9 | 8 |
| 128 | Effect of atactic poly(3-hydroxybutyrate) block on the crystallization and degradation behavior of 6-arm poly(l-lactide)-b-atactic poly(3-hydroxybutyrate). <i>Polymer Degradation and Stability</i> , 2015 , 114, 8-15 | 4.7 | 3 |
| 127 | Miscibility and morphology study on crystalline/crystalline partially miscible polymer blends of 6-arm Poly(l-lactide) and Poly(3-hydroxybutyrate-co-3-hydroxyvalerate). <i>Polymer</i> , 2015 , 60, 260-266 | 3.9 | 12 |
| 126 | Synthesis and Properties of Alternating Copolymers of 3-Hydroxybutyrate and Lactate Units with Different Stereocompositions. <i>Macromolecules</i> , 2014 , 47, 7354-7361 | 5.5 | 24 |

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|-----|--|-----|----|
| 125 | Polymorphic crystallization of poly(butylene adipate) and its copolymer: Effect of poly(vinyl alcohol). <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a | 2.9 | 4 |
| 124 | Alcoholic cleavage of polyhydroxyalkanoate chains by class IV synthases induced by endogenous and exogenous ethanol. <i>Applied and Environmental Microbiology</i> , 2014 , 80, 1421-9 | 4.8 | 22 |
| 123 | In vitro evidence of chain transfer to tetraethylene glycols in enzymatic polymerization of polyhydroxyalkanoate. <i>Applied Microbiology and Biotechnology</i> , 2013 , 97, 4821-9 | 5.7 | 10 |
| 122 | Effects of composition and sequential structure on thermal properties for copolymer of 3-hydroxybutyrate and lactate units. <i>Polymer Degradation and Stability</i> , 2013 , 98, 1796-1803 | 4.7 | 5 |
| 121 | Effect of glycerol and its analogs on polyhydroxyalkanoate biosynthesis by recombinant <i>Ralstonia eutropha</i> : A quantitative structure-activity relationship study of chain transfer agents. <i>Polymer Degradation and Stability</i> , 2013 , 98, 1586-1590 | 4.7 | 13 |
| 120 | Development and validation of an HPLC-based screening method to acquire polyhydroxyalkanoate synthase mutants with altered substrate specificity. <i>Journal of Bioscience and Bioengineering</i> , 2012 , 113, 286-92 | 3.3 | 23 |
| 119 | Utilization of 2-alkenoic acids for biosynthesis of medium-chain-length polyhydroxyalkanoates in metabolically engineered <i>Escherichia coli</i> to construct a novel chemical recycling system. <i>Polymer Degradation and Stability</i> , 2012 , 97, 329-336 | 4.7 | 33 |
| 118 | Display of functionally active PHB depolymerase on <i>Escherichia coli</i> cell surface. <i>Macromolecular Bioscience</i> , 2012 , 12, 218-24 | 5.5 | 4 |
| 117 | Thermal properties and crystallization behaviors of medium-chain-length poly(3-hydroxyalkanoate)s. <i>Polymer</i> , 2012 , 53, 3026-3034 | 3.9 | 34 |
| 116 | Molecular weight change of polyhydroxyalkanoate (PHA) caused by the PhaC subunit of PHA synthase from <i>Bacillus cereus</i> YB-4 in recombinant <i>Escherichia coli</i> . <i>Biomacromolecules</i> , 2011 , 12, 2660-6 | 6.9 | 42 |
| 115 | Enhanced incorporation of 3-hydroxy-4-methylvalerate unit into biosynthetic polyhydroxyalkanoate using leucine as a precursor. <i>AMB Express</i> , 2011 , 1, 6 | 4.1 | 17 |
| 114 | Enzymatic synthesis of poly(ethyl aspartate) by poly(ethylene glycol) modified poly(aspartate) hydrolase-1. <i>Macromolecular Bioscience</i> , 2011 , 11, 187-91 | 5.5 | 5 |
| 113 | Lactate fraction dependent mechanical properties of semitransparent poly(lactate-co-3-hydroxybutyrate)s produced by control of lactyl-CoA monomer fluxes in recombinant <i>Escherichia coli</i> . <i>Journal of Biotechnology</i> , 2011 , 154, 255-60 | 3.7 | 47 |
| 112 | Enzymatic Degradation 2010 , 383-399 | | 3 |
| 111 | Degradation and adsorption characteristics of PHB depolymerase as revealed by kinetics of mutant enzymes with amino acid substitution in substrate-binding domain. <i>Biomacromolecules</i> , 2010 , 11, 113-9 | 6.9 | 23 |
| 110 | Comonomer compositional distribution, physical properties, and enzymatic degradability of bacterial poly(3-hydroxybutyrate-co-3-hydroxy-4-methylvalerate) copolyesters. <i>Biomacromolecules</i> , 2010 , 11, 1615-22 | 6.9 | 25 |
| 109 | Chain transfer reaction catalyzed by various polyhydroxyalkanoate synthases with poly(ethylene glycol) as an exogenous chain transfer agent. <i>Applied Microbiology and Biotechnology</i> , 2010 , 87, 1427-35 | 5.7 | 31 |
| 108 | Unusual change in molecular weight of polyhydroxyalkanoate (PHA) during cultivation of PHA-accumulating <i>Escherichia coli</i> . <i>Polymer Degradation and Stability</i> , 2010 , 95, 2250-2254 | 4.7 | 22 |

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| 107 | Surface Patterning of Poly(ϵ -caprolactone): Epitaxial Crystallization and Enzymatic Degradation. <i>Macromolecular Chemistry and Physics</i> , 2010 , 211, 2480-2483 | 2.6 | 9 |
| 106 | Improved synthesis of P(3HB-co-3HV-co-3HHx) terpolymers by mutant <i>Cupriavidus necator</i> using the PHA synthase gene of <i>Chromobacterium</i> sp. USM2 with high affinity towards 3HV. <i>Polymer Degradation and Stability</i> , 2010 , 95, 1436-1442 | 4.7 | 43 |
| 105 | Solvent-induced morphological diversification in poly(l-lactide-b-e-caprolactone) block copolymer thin films. <i>Polymer Degradation and Stability</i> , 2010 , 95, 1414-1420 | 4.7 | 5 |
| 104 | Characterization of biosynthesized P(3HB-co-3HA)s swellable in organic solvents. <i>Polymer Degradation and Stability</i> , 2010 , 95, 1345-1348 | 4.7 | 5 |
| 103 | Biodegradability of Poly(hydroxyalkanoate) Materials. <i>Materials</i> , 2009 , 2, 1104-1126 | 3.5 | 50 |
| 102 | Cloning of poly(aspartic acid) (PAA) hydrolase-1 gene from <i>Pedobacter</i> sp. KP-2 and hydrolysis of thermally synthesized PAA by its gene product. <i>Macromolecular Bioscience</i> , 2009 , 9, 10-9 | 5.5 | 9 |
| 101 | Evaluating the ability of polyhydroxyalkanoate synthase mutants to produce P(3HB-co-3HA) from soybean oil. <i>Macromolecular Bioscience</i> , 2009 , 9, 71-8 | 5.5 | 27 |
| 100 | In vitro synthesis of polyhydroxyalkanoate catalyzed by class II and III PHA synthases: a useful technique for surface coatings of a hydrophobic support with PHA. <i>Journal of Chemical Technology and Biotechnology</i> , 2009 , 85, 779-782 | 3.5 | 10 |
| 99 | Effect of phase structure on enzymatic degradation in poly(L-lactide)/atactic poly(3-hydroxybutyrate) blends with different miscibility. <i>Biomacromolecules</i> , 2009 , 10, 1013-8 | 6.9 | 28 |
| 98 | Identification, biosynthesis, and characterization of polyhydroxyalkanoate copolymer consisting of 3-hydroxybutyrate and 3-hydroxy-4-methylvalerate. <i>Biomacromolecules</i> , 2009 , 10, 2866-74 | 6.9 | 52 |
| 97 | Enzymatic processes for biodegradation of poly(hydroxyalkanoate)s crystals. <i>Canadian Journal of Chemistry</i> , 2008 , 86, 471-483 | 0.9 | 19 |
| 96 | Enzymatic degradation of monolayer for poly(lactide) revealed by real-time atomic force microscopy: effects of stereochemical structure, molecular weight, and molecular branches on hydrolysis rates. <i>Biomacromolecules</i> , 2008 , 9, 2180-5 | 6.9 | 38 |
| 95 | Adsorption characteristics of P(3HB) depolymerase as evaluated by surface plasmon resonance and atomic force microscopy. <i>Biomacromolecules</i> , 2008 , 9, 3201-7 | 6.9 | 10 |
| 94 | Structural effects of terminal groups on nonenzymatic and enzymatic degradations of end-capped poly(L-lactide). <i>Biomacromolecules</i> , 2008 , 9, 1071-8 | 6.9 | 28 |
| 93 | Polyhydroxyalkanoate film formation and synthase activity during in vitro and in situ polymerization on hydrophobic surfaces. <i>Biomacromolecules</i> , 2008 , 9, 2811-8 | 6.9 | 22 |
| 92 | Effect of metal compounds on thermal degradation behavior of aliphatic poly(hydroxyalkanoic acid)s. <i>Polymer Degradation and Stability</i> , 2008 , 93, 776-785 | 4.7 | 40 |
| 91 | Stereocomplex Formation through Reorganization of Poly(l-lactic acid) and Poly(d-lactic acid) Crystals. <i>Macromolecules</i> , 2008 , 41, 2852-2858 | 5.5 | 91 |
| 90 | Adsorption and hydrolysis reactions of poly(hydroxybutyric acid) depolymerases secreted from <i>Ralstonia pickettii</i> T1 and <i>Penicillium funiculosum</i> onto poly[(R)-3-hydroxybutyric acid]. <i>Biomacromolecules</i> , 2007 , 8, 2276-81 | 6.9 | 20 |

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|----|---|-----|-----|
| 89 | Structural Transition of Poly[(R)-3-hydroxybutyrate-co-(R)-3-hydroxyvalerate] Single Crystals on Heating As Revealed by Synchrotron Radiation SAXS and WAXD. <i>Macromolecules</i> , 2007 , 40, 2392-2399 | 5.5 | 17 |
| 88 | Variation in copolymer composition and molecular weight of polyhydroxyalkanoate generated by saturation mutagenesis of <i>Aeromonas caviae</i> PHA synthase. <i>Macromolecular Bioscience</i> , 2007 , 7, 846-54 | 5.5 | 40 |
| 87 | Adsorption effects of poly(hydroxybutyric acid) depolymerase on chain-folding surface of polyester single crystals revealed by mutant enzyme and frictional force microscopy. <i>Polymer Degradation and Stability</i> , 2007 , 92, 176-183 | 4.7 | 11 |
| 86 | Combination of N149S and D171G mutations in <i>Aeromonas caviae</i> polyhydroxyalkanoate synthase and impact on polyhydroxyalkanoate biosynthesis. <i>FEMS Microbiology Letters</i> , 2007 , 277, 217-22 | 2.9 | 58 |
| 85 | Poly[(R)-3-hydroxybutyrate] formation in <i>Escherichia coli</i> from glucose through an enoyl-CoA hydratase-mediated pathway. <i>Journal of Bioscience and Bioengineering</i> , 2007 , 103, 38-44 | 3.3 | 21 |
| 84 | Branched poly(lactide) synthesized by enzymatic polymerization: effects of molecular branches and stereochemistry on enzymatic degradation and alkaline hydrolysis. <i>Biomacromolecules</i> , 2007 , 8, 3115-25 | 6.9 | 120 |
| 83 | Adsorption of biopolyester depolymerase on silicon wafer and poly[(R)-3-hydroxybutyric acid] single crystal revealed by real-time AFM. <i>Macromolecular Bioscience</i> , 2006 , 6, 41-50 | 5.5 | 29 |
| 82 | Thermal degradation of environmentally degradable poly(hydroxyalkanoic acid)s. <i>Macromolecular Bioscience</i> , 2006 , 6, 469-86 | 5.5 | 88 |
| 81 | Real-Time Synchrotron SAXS and WAXD Studies on Annealing Behavior of Poly[(R)-3-hydroxybutyrate] Single Crystals. <i>Macromolecules</i> , 2006 , 39, 2201-2208 | 5.5 | 24 |
| 80 | Novel Periodic Copolymers Consisting of Ester and Amide Units with the Same Carbon Numbers: Effects of Comonomeric and Sequential Structures on Crystalline Structures and Physical Properties. <i>Macromolecules</i> , 2006 , 39, 9071-9079 | 5.5 | 8 |
| 79 | Phase structure and enzymatic degradation of poly(L-lactide)/atactic poly(3-hydroxybutyrate) blends: an atomic force microscopy study. <i>Biomacromolecules</i> , 2006 , 7, 1921-8 | 6.9 | 30 |
| 78 | Synthesis and Thermal Properties of Novel Periodic Poly(esteramide)s Derived from Adipate, Butane-1,4-diamine, and Linear Aliphatic Diols. <i>Macromolecules</i> , 2006 , 39, 2875-2885 | 5.5 | 28 |
| 77 | Effects of residual metal compounds and chain-end structure on thermal degradation of poly(3-hydroxybutyric acid). <i>Polymer Degradation and Stability</i> , 2006 , 91, 769-777 | 4.7 | 65 |
| 76 | Molecular weight characterization of poly[(R)-3-hydroxybutyrate] synthesized by genetically engineered strains of <i>Escherichia coli</i> . <i>Polymer Degradation and Stability</i> , 2006 , 91, 1138-1146 | 4.7 | 53 |
| 75 | Surface properties and enzymatic degradation of end-capped poly(l-lactide). <i>Polymer Degradation and Stability</i> , 2006 , 91, 1300-1310 | 4.7 | 19 |
| 74 | Altered expression of polyhydroxyalkanoate synthase gene and its effect on poly[(R)-3-hydroxybutyrate] synthesis in recombinant <i>Escherichia coli</i> . <i>Polymer Degradation and Stability</i> , 2006 , 91, 1645-1650 | 4.7 | 21 |
| 73 | Thermal degradation behavior of poly(4-hydroxybutyric acid). <i>Polymer Degradation and Stability</i> , 2006 , 91, 2333-2341 | 4.7 | 16 |
| 72 | Interaction between poly[(R)-3-hydroxybutyrate] depolymerase and biodegradable polyesters evaluated by atomic force microscopy. <i>Langmuir</i> , 2005 , 21, 11829-35 | 4 | 20 |

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|----|---|-----|-----|
| 71 | Crystal growth and solid-state structure of poly(lactide) Stereocopolymers. <i>Biomacromolecules</i> , 2005 , 6, 457-67 | 6.9 | 43 |
| 70 | Enzymatic degradation processes of poly[(R)-3-hydroxybutyric acid] and poly[(R)-3-hydroxybutyric acid-co-(R)-3-hydroxyvaleric acid] single crystals revealed by atomic force microscopy: effects of molecular weight and second-monomer composition on erosion rates. <i>Biomacromolecules</i> , 2005 , 6, 2008-16 | 6.9 | 41 |
| 69 | The role of polymorphic crystal structure and morphology in enzymatic degradation of melt-crystallized poly(butylene adipate) films. <i>Polymer Degradation and Stability</i> , 2005 , 87, 191-199 | 4.7 | 97 |
| 68 | Biosynthesis of polyhydroxyalkanoate (PHA) copolymer from fructose using wild-type and laboratory-evolved PHA synthases. <i>Macromolecular Bioscience</i> , 2005 , 5, 112-7 | 5.5 | 50 |
| 67 | Characterization and properties of G4X mutants of <i>Ralstonia eutropha</i> PHA synthase for poly(3-hydroxybutyrate) biosynthesis in <i>Escherichia coli</i> . <i>Macromolecular Bioscience</i> , 2005 , 5, 197-206 | 5.5 | 40 |
| 66 | Synchrotron SAXS and WAXS Studies on Changes in Structural and Thermal Properties of Poly[(R)-3-hydroxybutyrate] Single Crystals during Heating. <i>Macromolecular Rapid Communications</i> , 2005 , 26, 678-683 | 4.8 | 22 |
| 65 | Solid-state structures and thermal properties of aliphatic-aromatic poly(butylene adipate-co-butylene terephthalate) copolyesters. <i>Polymer Degradation and Stability</i> , 2004 , 83, 289-300 | 4.7 | 135 |
| 64 | In-situ atomic force microscopy observation of enzymatic degradation in poly(hydroxyalkanoic acid) thin films: normal and constrained conditions. <i>Macromolecular Bioscience</i> , 2004 , 4, 276-85 | 5.5 | 16 |
| 63 | Novel Biodegradable Copolymers with a Periodic Sequence Structure Derived from Succinate Butan-1,4-diol, and Butan-1,4-diamine. <i>Macromolecular Rapid Communications</i> , 2004 , 25, 1303-1308 | 4.8 | 16 |
| 62 | Temperature dependence of the molecular motion in the crystalline region of biodegradable poly(butylene adipate), poly(ethylene succinate), and poly(butylene succinate). <i>Polymer Degradation and Stability</i> , 2004 , 84, 105-114 | 4.7 | 14 |
| 61 | Molecular mobility and crystalline phase structure of biodegradable poly[(R)-3-hydroxybutyric acid-co-(R)-3-hydroxyhexanoic acid]. <i>Polymer Degradation and Stability</i> , 2004 , 84, 135-141 | 4.7 | 4 |
| 60 | Thermal degradation processes of end-capped poly(L-lactide)s in the presence and absence of residual zinc catalyst. <i>Biomacromolecules</i> , 2004 , 5, 1606-14 | 6.9 | 82 |
| 59 | Effects of residual zinc compounds and chain-end structure on thermal degradation of poly(epsilon-caprolactone). <i>Biomacromolecules</i> , 2004 , 5, 1480-8 | 6.9 | 48 |
| 58 | Effective enhancement of short-chain-length-medium-chain-length polyhydroxyalkanoate copolymer production by coexpression of genetically engineered 3-ketoacyl-acyl-carrier-protein synthase III (fabH) and polyhydroxyalkanoate synthesis genes. <i>Biomacromolecules</i> , 2004 , 5, 1457-64 | 6.9 | 55 |
| 57 | Synthesis, solid-state structure, and surface properties of end-capped poly(L-lactide). <i>Biomacromolecules</i> , 2004 , 5, 530-6 | 6.9 | 27 |
| 56 | Metastability and transformation of polymorphic crystals in biodegradable poly(butylene adipate). <i>Biomacromolecules</i> , 2004 , 5, 371-8 | 6.9 | 142 |
| 55 | Effect of water on the surface molecular mobility of poly(lactide) thin films: an atomic force microscopy study. <i>Biomacromolecules</i> , 2004 , 5, 1187-93 | 6.9 | 32 |
| 54 | Enzymatic degradation processes of lamellar crystals in thin films for poly[(R)-3-hydroxybutyric acid] and its copolymers revealed by real-time atomic force microscopy. <i>Biomacromolecules</i> , 2004 , 5, 2186-94 | 6.9 | 41 |

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|----|---|-----|-----|
| 53 | Crystal Growth in Poly(L-lactide) Thin Film Revealed by in situ Atomic Force Microscopy. <i>Macromolecular Chemistry and Physics</i> , 2003 , 204, 1822-1831 | 2.6 | 60 |
| 52 | Biochemical and molecular characterization of poly(aspartic acid) hydrolase-2 from sphingomonas sp. KT-1. <i>Biomacromolecules</i> , 2003 , 4, 1285-92 | 6.9 | 19 |
| 51 | The Solid-State Structure, Thermal and Crystalline Properties of Bacterial Copolyesters of (R)-3-Hydroxybutyric Acid with (R)-3-Hydroxyhexanoic Acid 2003 , 167-184 | | 2 |
| 50 | Real-time enzymatic degradation study of poly[(R)-3-hydroxybutyric acid] copolymer thin film by atomic force microscopy in buffer solution. <i>Macromolecular Bioscience</i> , 2002 , 2, 189 | 5.5 | 12 |
| 49 | Temperature-Induced Polymorphic Crystals of Poly(butylene adipate). <i>Macromolecular Chemistry and Physics</i> , 2002 , 203, 2369-2374 | 2.6 | 120 |
| 48 | Crystal morphologies and enzymatic degradation of melt-crystallized thin films of random copolyesters of (R)-3-hydroxybutyric acid with (R)-3-hydroxyalkanoic acids. <i>Polymer Degradation and Stability</i> , 2002 , 76, 467-478 | 4.7 | 14 |
| 47 | Molecular mobility and phase structure of biodegradable poly(butylene succinate) and poly(butylene succinate-co-butylene adipate). <i>Biomacromolecules</i> , 2002 , 3, 1095-100 | 6.9 | 33 |
| 46 | Side-chain effect of second monomer units on crystalline morphology, thermal properties, and enzymatic degradability for random copolyesters of (R)-3-hydroxybutyric acid with (R)-3-hydroxyalkanoic acids. <i>Biomacromolecules</i> , 2002 , 3, 133-8 | 6.9 | 59 |
| 45 | Engineering of <i>Ralstonia eutropha</i> for production of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) from fructose and solid-state properties of the copolymer. <i>Biomacromolecules</i> , 2002 , 3, 618-24 | 6.9 | 64 |
| 44 | Crystallization, stability, and enzymatic degradation of poly(L-lactide) thin film. <i>Biomacromolecules</i> , 2002 , 3, 350-6 | 6.9 | 100 |
| 43 | Crystalline/amorphous phase structure and molecular mobility of biodegradable poly(butylene adipate-co-butylene terephthalate) and related polyesters. <i>Biomacromolecules</i> , 2002 , 3, 390-6 | 6.9 | 68 |
| 42 | Molecular and Material Design of Biodegradable Polyhydroxyalkanoates (PHAs) 2002 , | | 4 |
| 41 | In situ observation of lamellar growth in thin films for poly[(R)-3-hydroxybutyric acid-co-6-hydroxyhexanoic acid] at a high crystallization temperature of 110°C by atomic force microscopy. <i>Polymer</i> , 2001 , 42, 2707-2710 | 3.9 | 11 |
| 40 | Morphological and kinetic analyses of regime transition for poly[(S)-lactide] crystal growth. <i>Biomacromolecules</i> , 2001 , 2, 1007-14 | 6.9 | 158 |
| 39 | Crystallization, melting, and enzymatic degradation of biodegradable poly(butylene succinate-co-14 mol % ethylene succinate) copolyester. <i>Biomacromolecules</i> , 2001 , 2, 313-21 | 6.9 | 117 |
| 38 | Solid-state microstructures, thermal properties, and crystallization of biodegradable poly(butylene succinate) (PBS) and its copolyesters. <i>Biomacromolecules</i> , 2001 , 2, 605-13 | 6.9 | 203 |
| 37 | Analysis of adsorption function of polyhydroxybutyrate depolymerase from <i>Alcaligenes faecalis</i> T1 by using a quartz crystal microbalance. <i>Biomacromolecules</i> , 2001 , 2, 25-8 | 6.9 | 37 |
| 36 | In situ observation of crystal growth for poly[(S)-lactide] by temperature-controlled atomic force microscopy. <i>Biomacromolecules</i> , 2001 , 2, 940-5 | 6.9 | 56 |

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| 35 | Purification and characterization of poly(aspartic acid) hydrolase from <i>Sphingomonas</i> sp. KT-1. <i>Biomacromolecules</i> , 2001 , 2, 1155-60 | 6.9 | 32 |
| 34 | Crystalline morphology and thermal properties for random copolyesters of (R)-3-hydroxybutyric acid with different hydroxyalkanoic groups. <i>Macromolecular Symposia</i> , 2001 , 174, 43-50 | 0.8 | 1 |
| 33 | Microscopic visualization on crystalline morphologies of thin films for poly[(R)-3-hydroxybutyric acid] and its copolymer. <i>Polymer</i> , 2000 , 41, 867-874 | 3.9 | 52 |
| 32 | Effect of low molecular weight additives on enzymatic degradation of poly(3-hydroxybutyrate). <i>Polymer</i> , 2000 , 41, 3227-3234 | 3.9 | 62 |
| 31 | Miscibility and solid-state structures for blends of poly[(S)-lactide] with atactic poly[(R,S)-3-hydroxybutyrate]. <i>Polymer</i> , 2000 , 41, 5985-5992 | 3.9 | 171 |
| 30 | Synthesis, structure and properties of polyhydroxyalkanoates: biological polyesters. <i>Progress in Polymer Science</i> , 2000 , 25, 1503-1555 | 29.6 | 1591 |
| 29 | Biodegradable poly(ethylene succinate) (PES). 1. Crystal growth kinetics and morphology. <i>Biomacromolecules</i> , 2000 , 1, 704-12 | 6.9 | 124 |
| 28 | Studies on the Enzymatic Degradation of Solution-Grown Lamellar Crystals of Poly[(R)-3-hydroxybutyrate]: Defects in Crystals. <i>Macromolecules</i> , 2000 , 33, 9535-9541 | 5.5 | 22 |
| 27 | Biodegradable poly(ethylene succinate) (PES). 2. Crystal morphology of melt-crystallized ultrathin film and its change after enzymatic degradation. <i>Biomacromolecules</i> , 2000 , 1, 713-20 | 6.9 | 69 |
| 26 | Biosynthesis and properties of poly(3-hydroxybutyrate-co-3-hydroxyalkanoates) by recombinant strains of <i>Pseudomonas</i> sp. 61-3. <i>Biomacromolecules</i> , 2000 , 1, 17-22 | 6.9 | 159 |
| 25 | Microbial degradation of poly(aspartic acid) by two isolated strains of <i>Pedobacter</i> sp. and <i>Sphingomonas</i> sp. <i>Biomacromolecules</i> , 2000 , 1, 157-61 | 6.9 | 46 |
| 24 | Effect of monomer composition and composition distribution on enzymatic degradation of poly(3-hydroxybutyrate-co-3-hydroxyvalerate). <i>Macromolecular Chemistry and Physics</i> , 1999 , 200, 977-982 ^{2.6} | 2.6 | 26 |
| 23 | Crystallization behavior and thermal properties of melt-crystallized poly[(R)-3-hydroxybutyric acid-co-6-hydroxyhexanoic acid] films. <i>International Journal of Biological Macromolecules</i> , 1999 , 25, 177-83 ^{7.9} | 7.9 | 13 |
| 22 | Structural effects on enzymatic degradabilities for poly[(R)-3-hydroxybutyric acid] and its copolymers. <i>International Journal of Biological Macromolecules</i> , 1999 , 25, 185-92 | 7.9 | 85 |
| 21 | Poly(aspartic acid) degradation by a <i>Sphingomonas</i> sp. isolated from freshwater. <i>Applied and Environmental Microbiology</i> , 1999 , 65, 4268-70 | 4.8 | 42 |
| 20 | Physical properties and enzymatic degradability of copolymers of (R)-3-hydroxybutyric acid and (S,S)-lactide. <i>Polymer</i> , 1998 , 39, 59-67 | 3.9 | 64 |
| 19 | Studies on comonomer compositional distribution of the bacterial poly(3-hydroxybutyric acid-co-3-hydroxypropionic acid)s and crystal and thermal characteristics of their fractionated component copolyesters. <i>Polymer</i> , 1998 , 39, 4801-4816 | 3.9 | 50 |
| 18 | Solid-State Structures and Enzymatic Degradabilities for Melt-Crystallized Films of Copolymers of (R)-3-Hydroxybutyric Acid with Different Hydroxyalkanoic Acids. <i>Macromolecules</i> , 1998 , 31, 1791-1797 | 5.5 | 164 |

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| 17 | Morphologies and enzymatic degradability of melt-crystallized poly(3-hydroxybutyric acid-Co-6-hydroxyhexanoic acid). <i>Macromolecular Symposia</i> , 1998 , 130, 81-89 | 0.8 | 3 |
| 16 | Structural effects on biodegradation of aliphatic polyesters. <i>Macromolecular Symposia</i> , 1997 , 118, 725-731 | 18 | |
| 15 | Composition Fractionation and Thermal Characterization of Poly(3-hydroxybutyrate-co-3-hydroxypropionate). <i>Polymer Journal</i> , 1996 , 28, 1096-1102 | 2.7 | 28 |
| 14 | Enzymatic and Environmental Degradation of Racemic Poly(3-hydroxybutyric acid)s with Different Stereoregularities. <i>Macromolecules</i> , 1996 , 29, 8683-8688 | 5.5 | 43 |
| 13 | Evaluation of biodegradabilities of biosynthetic and chemosynthetic polyesters in river water. <i>Polymer Degradation and Stability</i> , 1996 , 51, 281-286 | 4.7 | 85 |
| 12 | Molecular Weight of Poly(3-Hydroxybutyrate) during Biological Polymerization in <i>Alcaligenes Eutrophus</i> . <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 1995 , 32, 759-774 | 2.2 | 18 |
| 11 | Physical Properties and Enzymic Degradability of Copolymers of (R)-3-Hydroxybutyric and 6-Hydroxyhexanoic Acids. <i>Macromolecules</i> , 1995 , 28, 7630-7637 | 5.5 | 67 |
| 10 | Microbial Synthesis and Characterization of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). <i>Macromolecules</i> , 1995 , 28, 4822-4828 | 5.5 | 622 |
| 9 | Physical Properties and Enzymic Degradability of Polymer Blends of Bacterial Poly[(R)-3-hydroxybutyrate] and Poly[(R,S)-3-hydroxybutyrate] Stereoisomers. <i>Macromolecules</i> , 1995 , 28, 844-853 | 5.5 | 155 |
| 8 | Physical Properties and Enzymic Degradability of Poly(3-hydroxybutyrate) Stereoisomers with Different Stereoregularities. <i>Macromolecules</i> , 1994 , 27, 6018-6025 | 5.5 | 91 |
| 7 | Biosynthesis from gluconate of a random copolyester consisting of 3-hydroxybutyrate and medium-chain-length 3-hydroxyalkanoates by <i>Pseudomonas</i> sp. 61-3. <i>International Journal of Biological Macromolecules</i> , 1994 , 16, 115-9 | 7.9 | 79 |
| 6 | Miscibility and morphology of blends of isotactic and atactic poly(3-hydroxybutyrate). <i>Macromolecules</i> , 1994 , 27, 50-54 | 5.5 | 72 |
| 5 | Synthesis and Characterization of Poly[(R,S)-3-hydroxybutyrate-b-6-hydroxyhexanoate] as a Compatibilizer for a Biodegradable Blend of Poly[(R)-3-hydroxybutyrate] and Poly(6-hydroxyhexanoate). <i>Macromolecules</i> , 1994 , 27, 6012-6017 | 5.5 | 57 |
| 4 | Morphology and enzymatic degradation of poly[(R)-3-hydroxybutyrate] plasticized with acylglycerols. <i>Studies in Polymer Science</i> , 1994 , 12, 591-595 | | 6 |
| 3 | Preparation of Poly(3-hydroxybutyrate) Microspheres Containing Lastet of an Anticancer Drug and Its Application to Drug Delivery System.. <i>Kobunshi Ronbunshu</i> , 1992 , 49, 61-67 | 0 | 6 |
| 2 | Controlled Release of Lastet, an Anticancer Drug, From Poly(3-Hydroxybutyrate) Microspheres Containing Acylglycerols. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 1992 , 29, 229-235 | 2.2 | 4 |
| 1 | Thermal properties of poly(3-hydroxy-2-methylbutyrate-co-3-hydroxybutyrate) copolymers with narrow comonomer-unit compositional distributions. <i>Polymer Journal</i> , | 2.7 | 2 |