

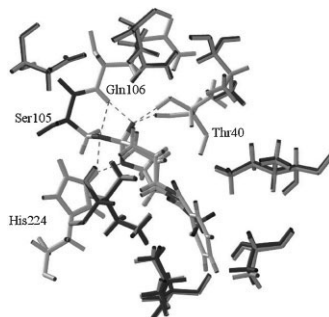
Macromolecular Symposia: Vol. 272

Articles published on the web will appear
several weeks before the print edition.
They are available through:



www.interscience.wiley.com

Cover: The cover shows a molecular dynamics simulated transition-state (TS) structures of γ -acyloxy- ϵ -caprolactones in the formation of the acyl-enzyme in *Candida antarctica* lipase B. It is selected from the article by Keul, p.28



(Bio)degradable Polymers from Renewable Resources

Vienna, Austria, November 18–21, 2007

Preface

S. Penczek, S. Slomkowski

Poly(lactide (PLA) and Highly Filled PLA -
Calcium Sulfate Composites with
Improved Impact Properties

M. Murariu,
A. Da Silva Ferreira,
E. Duquesne,
L. Bonnaud,
Ph. Dubois*

I1

Thermo-Responsive Hydrogels Based on
Branched Poly(L-lactide)-poly(ethylene
glycol) Copolymers

Ingrid W. Velthoen,
Edze J. Tijsma,
Pieter J. Dijkstra,
Jan Feijen*

I13

γ -Acyloxy- ϵ -Caprolactones: Synthesis, Ring-Opening Polymerization vs. Rearrangement by Means of Chemical and Enzymatic Catalysis	<i>Cristian Vaida, Mohamad Takwa, Mats Martinelle, Karl Hult, Helmut Keul,* Martin Möller</i>	28
Degradation Behavior of the Hydrogel Poly(vinyl alcohol)- <i>graft</i> -Poly[(<i>rac</i> -lactide)- <i>co</i> -glycolide]] under Different Conditions	<i>Elvira Vidović,* Doris Klee, Hartwig Höcker</i>	39
Micro-Encapsulation and Antifouling Coatings: Development of Poly(lactic acid) Microspheres Containing Bioactive Molecules	<i>Fabienne Fay,* Isabelle Linossier, Gaëlle Legendre, Karine Vallée-Réhel</i>	45
Fabrication of Honeycomb-Structured Poly(DL-lactide) and Poly[(DL-lactide)- <i>co</i> -glycolide]] Films and their Use as Scaffolds for Osteoblast-Like Cell Culture	<i>Julian B. Chaudhuri, Matthew G. Davidson,* Marianne J. Ellis,* Matthew D. Jones, XuJun Wu</i>	52
Cellular Response after Stimulation of the Gelatin-Alginate Matrixes	<i>Maria Szymonowicz,* Stanisław Pielka, Anna Marcinkowska, Bogusława Żywicka, Andrzej Gamian, Dorota Haznar, Janusz Pluta</i>	58
The Study of Kinetics of Poly[(<i>R,S</i>)-3-hydroxybutyrate] Degradation Induced by Carboxylate	<i>Michał Kawalec, Henryk Janeczek, Grazyna Adamus, Piotr Kurcok,* Marek Kowalczyk, Mariastella Scandola</i>	63
Poly(L-lactide) Nano- and Microfibers by Electrospinning: Influence of Poly-(L-lactide) Molecular Weight	<i>Wacław Tomaszewski,* Andrzej Duda, Marek Szadkowski, Jan Libiszowski, Danuta Ciechanska</i>	70
Molar Mass and Structural Characteristics of Poly[lactide- <i>co</i> -(aspartic acid)] Block Copolymers	<i>Ida Poljanšek,* Maja Gričar, Ema Žagar, Majda Žigon</i>	75
Crystallinity and Crystalline Confinement of the Amorphous Phase in Poly(lactides)	<i>Jose-Ramon Sarasua,* Ester Zuza, Nagore Imaz, Emilio Meaurio</i>	81

Polyhydroxyalkanoate (PHA) Biosynthesis from Whey Lactose	<i>Martin Koller,* Aid Atlić, Yolanda Gonzalez-Garcia, Christoph Kutschera, Gerhart Braunegg</i>	87
A Thermogravimetric Approach to Study the Influence of a Biodegradation in Soil Test to a Poly(lactic acid)	<i>J. D. Badía, R. Moriana, L. Santonja-Blasco, A. Ribes-Greus*</i>	93
Biodegradation of Blown Films Based on Poly(lactic acid) under Natural Conditions	<i>Vladimir Sedlarik,* Nabanita Saha, Jana Sedlarikova, Petr Saha</i>	100
Bark Suberin as a Renewable Source of Long-Chain ω -Hydroxyalkanoic Acids	<i>Helena Nilsson, Ann Olsson, Mikael Lindström, Tommy Iversen*</i>	104
Novel Photosensitizers Based on Polysaccharides – Dextran Modified with Anthracene	<i>Maria Nowakowska,* Szczepan Zapotoczny, Krzysztof Szczubiałka, Monika Sterzel, Łukasz Moczek</i>	107
The Polarized Light-Induced Enzymatic Formation and Degradation of Biopolymers	<i>Anna Konieczna-Molenda, Maciej Fiedorowicz, Piotr Tomasik*</i>	117
Supramolecular Systems from Natural Polymers and Maleic Polyelectrolytes	<i>Irina Popescu,* Marcel Ionel Popa, Gabrielle Charlotte Chitanu</i>	125
Degradation Study of Polymers from Renewable Resources and their Compositions in Industrial Composting Pile	<i>Wanda Sikorska, Piotr Dacko, Michał Sobota, Joanna Rydz, Marta Musioł, Marek Kowalczyk*</i>	132
Supramolecular Structure - A Key Parameter for Cellulose Biodegradation	<i>Diana Ciolacu,* Florin Ciolacu, Valentin I. Popa</i>	136

The Effects of the Modified Starches on the Melting Flow and Biodegradation of the Starch/Glycerol Blend	<i>Chia-I Liu, Ming-Lih Roan, Sung-Yeng Yang, Chi-Yuan Huang,* Wang-Ling Lu, Su-Chen Chen</i>	143
Improving the Processing Ability and Mechanical Strength of Starch/Poly(vinyl alcohol) Blends through Plasma and Acid Modification	<i>Sung-Yeng Yang, Chia-I Liu, Jing-Yi Wu, Ju-Chien Kuo, Chi-Yuan Huang*</i>	150
Illumination of Cellulose with Linearly Polarized Visible Light	<i>A. Konieczna - Molenda, M. Molenda, M. Fiedorowicz, P. Tomasik*</i>	156
Keratin Coatings for Wool: Shrinkproofing and Nanoparticle Delivery	<i>Jeanette M. Cardamone,* Justin J. Martin</i>	161

<i>Žagar, E.</i>	75	<i>Liu, C.-I.</i>	143, 150
<i>Žigon, M.</i>	75	<i>Lu, W.-L.</i>	143
<i>Żywicka, B.</i>	58	<i>Möller, M.</i>	28
<i>Adamus, G.</i>	63	<i>Marcinkowska, A.</i>	58
<i>Atlić, A.</i>	87	<i>Martin, J. J.</i>	161
<i>Badiá, J. D.</i>	93	<i>Martinelle, M.</i>	28
<i>Bonnaud, L.</i>	1	<i>Meaurio, E.</i>	81
<i>Braunegg, G.</i>	87	<i>Moczek, Ł.</i>	107
<i>Cardamone, J. M.</i>	161	<i>Molenda, M.</i>	156
<i>Chaudhuri, J. B.</i>	52	<i>Moriana, R.</i>	93
<i>Chen, S.-C.</i>	143	<i>Murariu, M.</i>	1
<i>Chitanu, G. C.</i>	125	<i>Musioł, M.</i>	132
<i>Ciechanska, D.</i>	70	<i>Nilsson, H.</i>	104
<i>Ciolacu, D.</i>	136	<i>Nowakowska, M.</i>	107
<i>Ciolacu, F.</i>	136	<i>Olsson, A.</i>	104
<i>Dacko, P.</i>	132	<i>Pielka, S.</i>	58
<i>Davidson, M. G.</i>	52	<i>Pluta, J.</i>	58
<i>Dijkstra, P. J.</i>	13	<i>Poljanšek, I.</i>	75
<i>Dubois, Ph.</i>	1	<i>Popa, M. I.</i>	125
<i>Duda, A.</i>	70	<i>Popa, V. I.</i>	136
<i>Duquesne, E.</i>	1	<i>Popescu, I.</i>	125
<i>Ellis, M. J.</i>	52	<i>Ribes-Greus, A.</i>	93
<i>Fay, F.</i>	45	<i>Roan, M.-L.</i>	143
<i>Feijen, J.</i>	13	<i>Rydz, J.</i>	132
<i>Ferreira, A. D. S.</i>	1	<i>Saha, N.</i>	100
<i>Fiedorowicz, M.</i>	117, 156	<i>Saha, P.</i>	100
<i>Gamian, A.</i>	58	<i>Santonja-Blasco, L.</i>	93
<i>Gonzalez-Garcia, Y.</i>	87	<i>Sarasua, J.-R.</i>	81
<i>Gričar, M.</i>	75	<i>Scandola, M.</i>	63
<i>Höcker, H.</i>	39	<i>Sedlarik, V.</i>	100
<i>Haznar, D.</i>	58	<i>Sedlarikova, J.</i>	100
<i>Huang, C.-Y.</i>	143, 150	<i>Sikorska, W.</i>	132
<i>Hult, K.</i>	28	<i>Sobota, M.</i>	132
<i>Imaz, N.</i>	81	<i>Sterzel, M.</i>	107
<i>Iversen, T.</i>	104	<i>Szadkowski, M.</i>	70
<i>Janeczek, H.</i>	63	<i>Szczubialka, K.</i>	107
<i>Jones, M. D.</i>	52	<i>Szymonowicz, M.</i>	58
<i>Kawalec, M.</i>	63	<i>Takwa, M.</i>	28
<i>Keul, H.</i>	28	<i>Tijmsma, E. J.</i>	13
<i>Klee, D.</i>	39	<i>Tomasik, P.</i>	117, 156
<i>Koller, M.</i>	87	<i>Tomaszewski, W.</i>	70
<i>Konieczna-Molenda, A.</i>	117, 156	<i>Vaida, C.</i>	28
<i>Kowalczyk, M.</i>	132, 63	<i>Vallée-Réhel, K.</i>	45
<i>Kuo, J.-C.</i>	150	<i>Velthoen, I. W.</i>	13
<i>Kurcok, P.</i>	63	<i>Vidović, E.</i>	39
<i>Kutschera, C.</i>	87	<i>Wu, J.-Y.</i>	150
<i>Legendre, G.</i>	45	<i>Wu, X.</i>	52
<i>Libiszowski, J.</i>	70	<i>Yang, S.-Y.</i>	143, 150
<i>Lindström, M.</i>	104	<i>Zapotoczny, S.</i>	107
<i>Linossier, I.</i>	45	<i>Zuza, E.</i>	81