

JOURNAL OF POLYMER SCIENCE | PART A

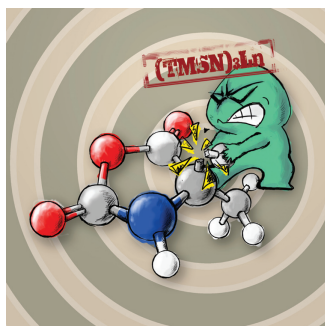
Polymer Chemistry

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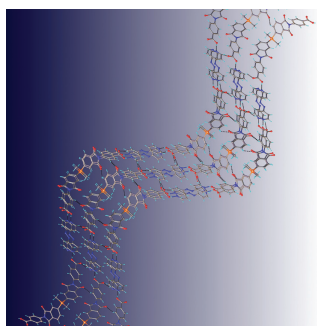
 WILEY

Polymer Chemistry



POLYMERIZATION MECHANISMS

A deprotonation process at the 4-CH group of α -amino acid *N*-carboxyanhydride (NCA) in the presence of rare earth metallic tris[bis(trimethylsilyl)amide] ((TMSN)₃Ln) is presented by J. Ling, H. Peng, and Z. Shen on page 3743. This long-term neglected reaction shows the acidity of the 4-CH group, not only explaining the racemization phenomenon of NCA in a strong base environment but also supporting that the proposed 4-CH-deprotonated NCA is responsible for *N*-substitute NCA polymerization. In addition, (TMSN)₃Ln is effective for preparing homo-polypeptides and block co-polypeptides with low molecular weight distributions (generally below 1.3).



SUPRAMOLECULAR ARCHITECTURE

Bis[*N*-(4-carboxyphenyl)phtalimidyl]dimethylsilane is prepared and used to build novel hydrogen-bonded supramolecular polymers as a result of co-crystallization with pyridine derivatives: 4,4'-bipyridyl (**SP1**), 1,2-bis(4-pyridyl)ethylene (**SP2**), and 4,4'-azopyridine (**SP3**), as presented on page 3775 by M.-F. Zaltariov, M. Cazacu, S. Shova, A. Vlad, I. Stoica, and E. Hamciuc. The figure shows a fragment of the 3D two-component supramolecular architecture in the crystal structure of SP3 that arises from the extended system of O—H···N and C—H···O hydrogen bonds. The 3D packing in the **SP3** structure essentially results from the parallel packing of the wavy layers in (011) orientation.

Coming soon Look for these important papers in upcoming issues of JPS: Polymer Chemistry

Jozef Lustoň, Juraj Kronek, Angela Kleinová, Ivica Janigová, Helena Valentová, and Jan Nedbal

Synthesis and Polymerization Reactions of Cyclic Imino Ethers. VI. Polymers with Biphenyl Structure

DOI: 10.1002/pola.26199

Antonio L. Medina-Castillo, Julia Morales-Sanfrutos, Alicia Megia-Fernandez, Jorge F. Fernandez-Sanchez, Francisco Santoyo-Gonzalez, and Alberto Fernandez-Gutierrez

Novel Synthetic Route for Covalent Coupling of Biomolecules on Super-paramagnetic Hybrid Nanoparticles

DOI: 10.1002/pola.26203

Hongjuan Jiang, Lifen Zhang, Jian Qin, Wei Zhang, Zhenping Cheng, and Xiulin Zhu

Producing Bimodal Molecular Weight Distribution Polymers through Facile One-Pot/One-Step RAFT Polymerization

DOI: 10.1002/pola.26212

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