

PREFACE

This volume contains papers presented at Symposium 4D, “New Trends in Polymer Chemistry and Characterization” of the XXIV International Materials Research Congress organized by the Sociedad Mexicana de Materiales A. C. in collaboration with the Materials Research Society (MRS), USA, which was held from August 17-21, 2015, in Cancún, Mexico. The symposium was devoted to fundamental and technological applications of polymeric materials, and continued the tradition of providing a forum for scientists from various backgrounds with a common interest in the development and use of polymeric materials to come together and share their findings and expertise.

The papers contained in this volume are a collection of invited and contributed papers. This year, the symposium was attended by participants from Argentina, Belgium, Canada, China, France, Germany, India, Israel, Japan, The Netherlands, Mexico, South Korea, Spain, Serbia, The United States, and Uruguay. All papers have been thoroughly reviewed by at least two referees and edited to the standards of the Materials Research Society.

The “New Trends in Polymer Chemistry and Characterization” symposium has been held for the last 12 years with the objective of presenting overviews and recent investigations related to polymer engineering, polymer physics, and polymer chemistry both in academia and industry. Polymers are one of the major areas of molecular and materials science with a high impact on society, from the basic research in which colleagues work in the synthesis of diverse new polymeric materials and their synthetic routes to the most common use in industry and their uses in almost every product used in daily life. Polymer science and technology is evolving and all branches are tackled in different fields. Design and application are closely related in the development of polymer commodities and high technology materials. The topics covered in these papers include macromolecular science (synthesis, polymerization mechanisms and kinetics, chemical modification), smart and functional polymers, supramolecular polymers and self-assembled materials, polymer engineering and technology (processing, composite materials and coatings), physical and chemical characterization of polymers, biopolymers, bio-related polymer materials and sustainable polymers, polymers for medical applications and drug delivery, simulation methods in polymer chemistry and physics.

The organizing committee gratefully acknowledges the enthusiastic cooperation of all symposium participants, and to Adriana Tejada, Antonio Sánchez, Cain González and Alberto López for their technical support. The financial support of the Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México (IIM-UNAM, México) is also acknowledged. We hope that all readers will come to

consider the “New Trends in Polymer Chemistry and Characterization” symposium in Cancún, Mexico, as a suitable forum to present the results of their recent research and experience.

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