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Definition of Terms Related to Polymer Blends, Composites, and Multiphase Polymeric Materials (IUPAC Recommendations 2004)

W.J. Work, K. Horie, M. Hess, and R.F.T. Stepto
Pure and Applied Chemistry
Vol. 76, No. 11, pp. 1985–2007 (2004)

This document defines the terms most commonly encountered in the field of polymer blends and composites. The scope has been limited to mixtures in which the components differ in chemical composition or molar mass and in which the continuous phase is polymeric. Incidental thermodynamic descriptions are mainly limited to binary mixtures although, in principle, they could be generalized to multicomponent mixtures.

The document is organized into three sections. The first defines terms basic to the description of polymer mixtures. The second defines terms commonly encountered in descriptions of phase domain behavior of polymer mixtures. The third defines terms commonly encountered in the descriptions of the morphologies of phase-separated polymer mixtures.

www.iupac.org/publications/pac/2004/7611/7611x1985.html

Characterization of Polyamides 6, 11, and 12. Determination of Molecular Weight by Size Exclusion Chromatography (IUPAC Technical Report)

E.C. Robert, et al.
Pure and Applied Chemistry
Vol. 76, No. 11, pp. 2009–2025 (2004)

This report presents the results from IUPAC Working Party IV.2.2 of the global trial within the framework of IUPAC Commission IV.2, "Characterization of Commercial Polymers." The results were compared on the basis of molecular weight obtained by size exclusion chromatography (SEC) using different techniques practiced in participating laboratories, the majority of which were materials suppliers. The practical methodologies used different solvents for the polymers, in particular, benzyl alcohol, 1,1,1,3,3,3 hexafluoropropan-2-ol and tetrahydrofuran; the latter solvent was used after chemical modification of the polyamides, in general with trifluoroacetic anhydride. Eight laboratories participated in the trial. The repeatability for molecular weight in each laboratory was good, whatever technique was used, the relative standard deviation averaged over all laboratories was around 3%. The

New Online Submission and Peer Review System for *PAC*

During 2004, an online submission and peer-review system was implemented for *Pure and Applied Chemistry*. The new Web-based workflow for manuscript handling will enable Scientific Editor James R. Bull to implement peer review of manuscripts from IUPAC-sponsored conferences, which was formerly a discretionary option of the conference organizers. The system also provides support to John W. Lorimer and Bernado J. Herold, editors of IUPAC Recommendations and Technical Reports and respectively chairman and secretary of the Interdivisional Committee on Terminology, Nomenclature and Symbols .

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For *PAC*, the system was configured to work on invitation only. Authors of conference papers or technical reports are invited to review the instructions for authors and—if it applies—request an invitation to submit manuscripts online <www.iupac.org/publications/authors/instructions.html>.

Questions or comments may be sent by e-mail to <edit.pac@iupac.org>.