



VABILO NA PREGLOV KOLOKVIJ / INVITATION TO THE PREGL COLLOQUIUM

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**Velika predavalnica Kemijskega inštituta / Lecture Hall at the
National Institute of Chemistry; Hajdrihova 19, Ljubljana**

Developments in Copolymer Characterization by chromatographic and spectroscopic techniques

Usually the characterization of complex polymers forces analytics to apply more than one technique. The reason for that is the wide variety of molecular distributions existing simultaneously in a polymer sample. This lecture will provide an overview of hyphenated techniques for the characterization of synthetic polymers. Systems are applied where different separation modes are linked and combined with multi-detector setups. The most sophisticated approach represents the coupling of different modes of liquid chromatography in a so-called orthogonal two-dimensional (2D) way viz. two independent modes with completely different separation mechanisms (e.g. adsorption chromatography x size exclusion chromatography).

For the characterization of molecular structure of liquid chromatographic fractions spectroscopic techniques like FTIR and NMR as well as mass spectrometry are available.

The main focus will be the comparison of MALDI-TOF-MS and ESI-TOF-MS coupled to different separation modes. The pros and cons of both spectrometric techniques will be discussed for copolymer analysis. Finally, different LC-MS coupling principles will be presented.

Vljudno vabljeni! / Kindly invited

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