

# ASYMMETRIC FLOW FIELD-FLOW FRACTIONATION AS A TOOL FOR CHARACTERIZATION OF COMPLEX MACROMOLECULAR AND SUPRAMOLECULAR STRUCTURES

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Comprehensive characterization of complex macromolecular structures is challenging since no single analytical technique provides adequate information regarding all the different distributions. In such cases the use of hyphenated techniques such as size-separation techniques (AF4, SEC) coupled to a multi-detection system (on-line successively connected ultra-violet, light-scattering and refractive-index detectors, UV-MALS-RI) provide more detailed insight into the complex macromolecular structures. In addition, separation by size using asymmetric flow field-flow fractionation (AF4) technique will be discussed on hybrid polymers and supramolecular structures, e.g., protein-poly(ethylene glycol) conjugates, large unilamellar vesicles, lipid droplets and exosomes.

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