



14th December 2017 - 10:00 h
CFEL – Building 99, seminar room I+II

Sadia Bari

Center for Free-Electron Laser Science (CFEL), Deutsches Elektronen-Synchrotron DESY,
Hamburg, Germany

Structure and Dynamics of Biomolecules Studied by Mass Spectrometry at Advanced Light Sources

Electrospray ionization (ESI) is a gentle, state-of-the-art technique to introduce biomolecular ions from solution into the gas phase and into vacuum, providing a solvent- and substrate-free environment. This enables to study the molecule in a well-defined, isolated state, where only intramolecular interactions have to be considered. The combination of an ESI source and mass spectrometry at advanced light sources such as synchrotrons and free-electron lasers allows for a novel and unique way to investigate structure and dynamics of gas-phase biomolecules. Ionization and dissociation processes dependent on photon energy and intensity will be discussed for different peptides, proteins and oligonucleotides.