

Showcasing research from Dr Aleksandar Milosavljević, Dr Alexandre Giuliani and coauthors performed at SOLEIL synchrotron, France.

Oxygen K-shell spectroscopy of isolated progressively solvated peptide

This work investigates decomposition of an isolated progressively solvated neuropeptide, substance P, upon oxygen core-level resonant excitation by soft X-rays. Oxygen atoms in different chemical environments were probed selectively by fine-tuning the photon energy to be resonant with oxygen atoms in the peptide or the water cluster. Ionic fragmentation of the solvated complexes, observed with a linear ion trap mass spectrometer coupled to the beamline, showed how the excitation of the first water solvation shell influences the fragmentation of the peptide on a molecular level.





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