

REVEALING INTRINSIC PROPERTIES OF SMALL BIOMOLECULES BY IONIZATION-LOSS STIMULATED RAMAN SPECTROSCOPY

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The spectral study of isolated molecules and clusters, assisted by quantum chemical calculations, allows for predicting their three-dimensional electronic structures and gaining insight into their relative energies, non-covalent interactions, and contributions to structure stabilization. Here we will show double resonance measurements, with ionization-loss stimulated Raman spectroscopy probing single-conformation hydrates of neurotransmitters and providing their vibrational signatures in a broad frequency range for obtaining new information on the structural details and uncovering the approach potential.