IUVS: the UV-tunable Resonant Raman scattering facility at Elettra-Sincrotrone Trieste

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We present a new Resonant Raman scattering set-up working in the UV spectral range. The set-up exploits the UV synchrotron radiation source available at Elettra (Trieste, Italy) enables to perform Raman spectra using synchrotron radiation in the range of wavelengths 200-270 nm. It results in an innovative spectroscopic facility to be used for addressing a large array of open problems in many important fields of researches. The set-up versatility and the possibility of carrying out, within the same experimental set-up, Resonant Raman measurements in a wide spectral range allows to conduct studies in many issues related to biophysics, such as studies on DNA, protein systems, nanospores and more generally in issues related on the hydration of biomolecules. Recently the Raman set-up has been employed with a micro-Raman system, operating in the ultraviolet. At present the set-up allows micro-Raman measurements with spatial resolution of about 20 um.

References