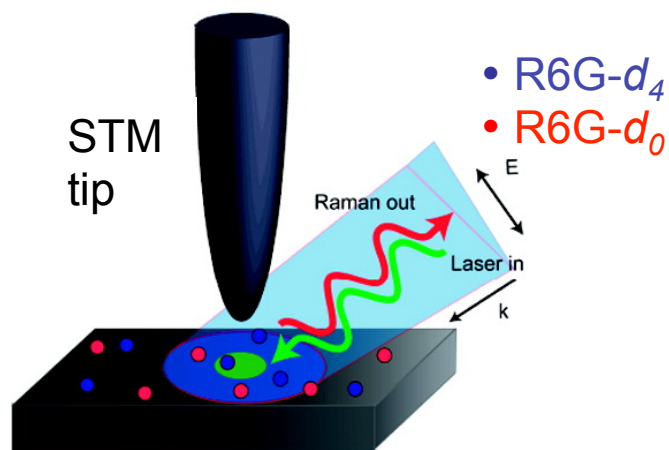




# Single Molecule Tip Enhanced Raman Spectroscopy

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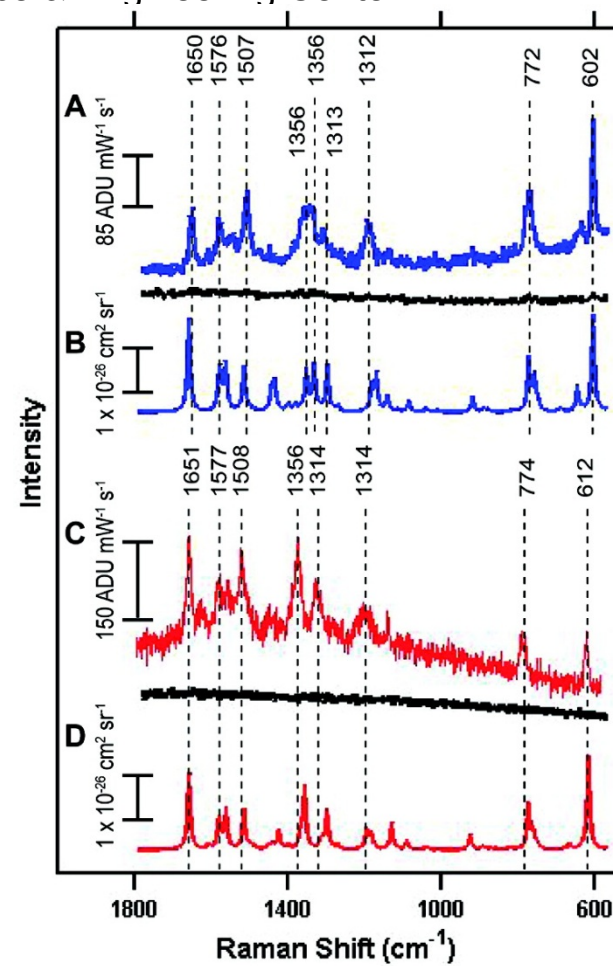


Left: Scheme of experimental set-up.

Right: TER spectra for different isotopologues, analogous to a unique fingerprint that allows molecule identification.

Tip-enhanced Raman spectroscopy (TERS) is a powerful tool to study chemical reactions since it provides chemical information on the nanometer length scale. In fact, it can “see” one single molecule at a time, this was carried out by studying the vibrational signature of two rhodamine isotopologues.

The combination of spatially resolved chemical information with its out-standing sensitivity makes TERS a unique technique for fundamental research but also for sensing applications.



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