

# Chiral *RAMAN-2X*<sup>™</sup> Instrument

## UNIQUE ADVANTAGES OF THE CHIRAL *RAMAN-2X*<sup>™</sup> SPECTROMETER

- » Complete vibrational spectrum from ~100 to 2000  $\text{cm}^{-1}$  is accessible in one measurement
- » SCP configuration
- » DCP form also possible
- » Optional Olympus microscope IX71 or IX81
- » Temperature control
- » Water, an excellent media for studies of biomolecules, is not excluded as a solvent
- » Only micrograms - milligrams of sample required
- » Extremely *fast* collection Raman spectra, as fast as 150 msec

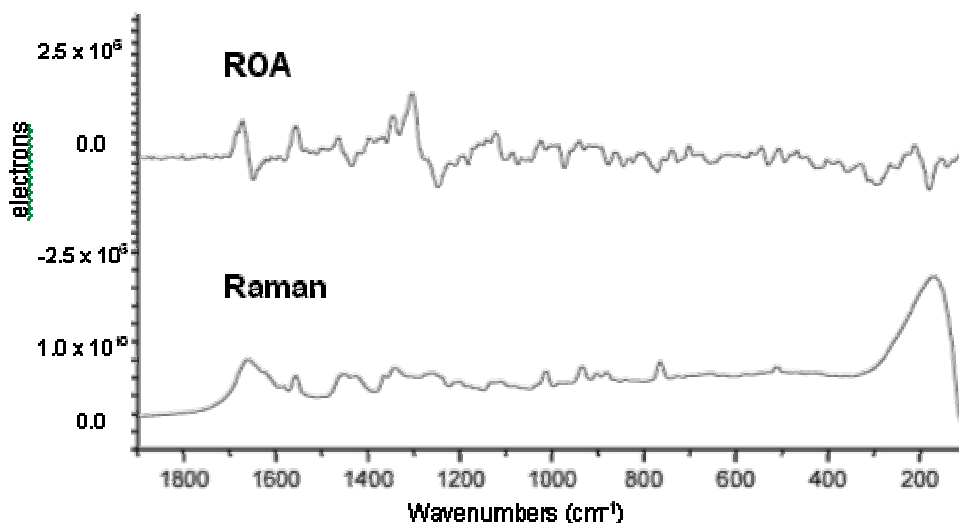
## APPLICATIONS

- » Determination of conformations of biological molecules such as proteins, nucleic acids, sugars and viruses
- » Formulation of biologics
- » Determination of absolute configuration without crystallization
- » Direct measurement of enantiomeric excess without enantiomeric separation



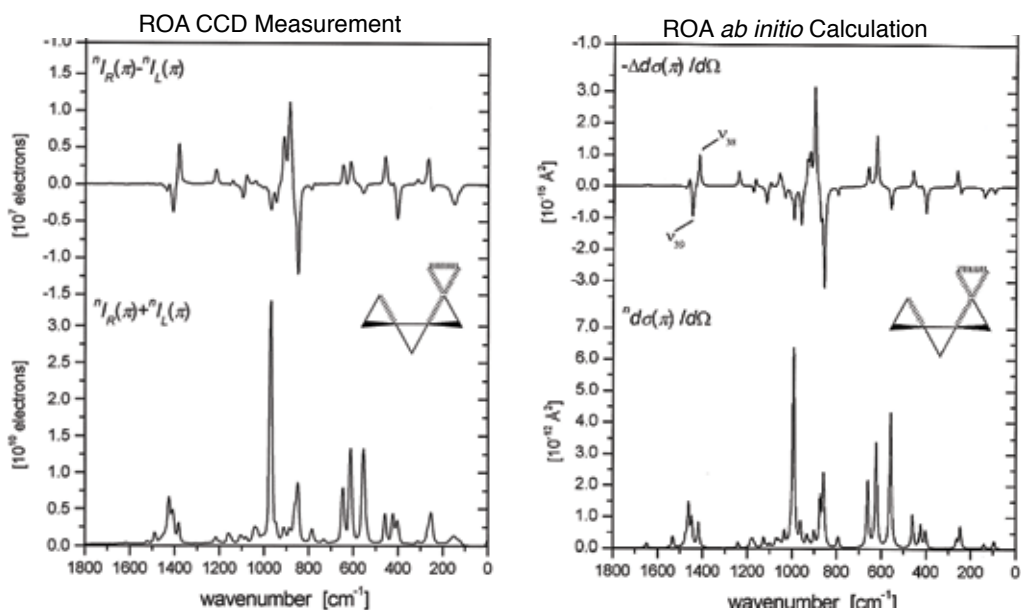
# ROA Application Examples

## 1) PROTEIN CONFORMATIONAL STUDIES



ROA and Raman spectra of hen egg white lysozyme in water. Measurement time is 80 minutes; power 1.2 Watts at the sample.

## 2) ABSOLUTE CONFIGURATION DETERMINATION



COMPARISON OF EXPERIMENTAL (LEFT) AND THEORETICAL (RIGHT) ROA (TOP) AND RAMAN (BOTTOM) SPECTRA OF (-)-(M)-S-[4]HELICENE. DATA COURTESY OF PROFESSOR WERNER HUG.