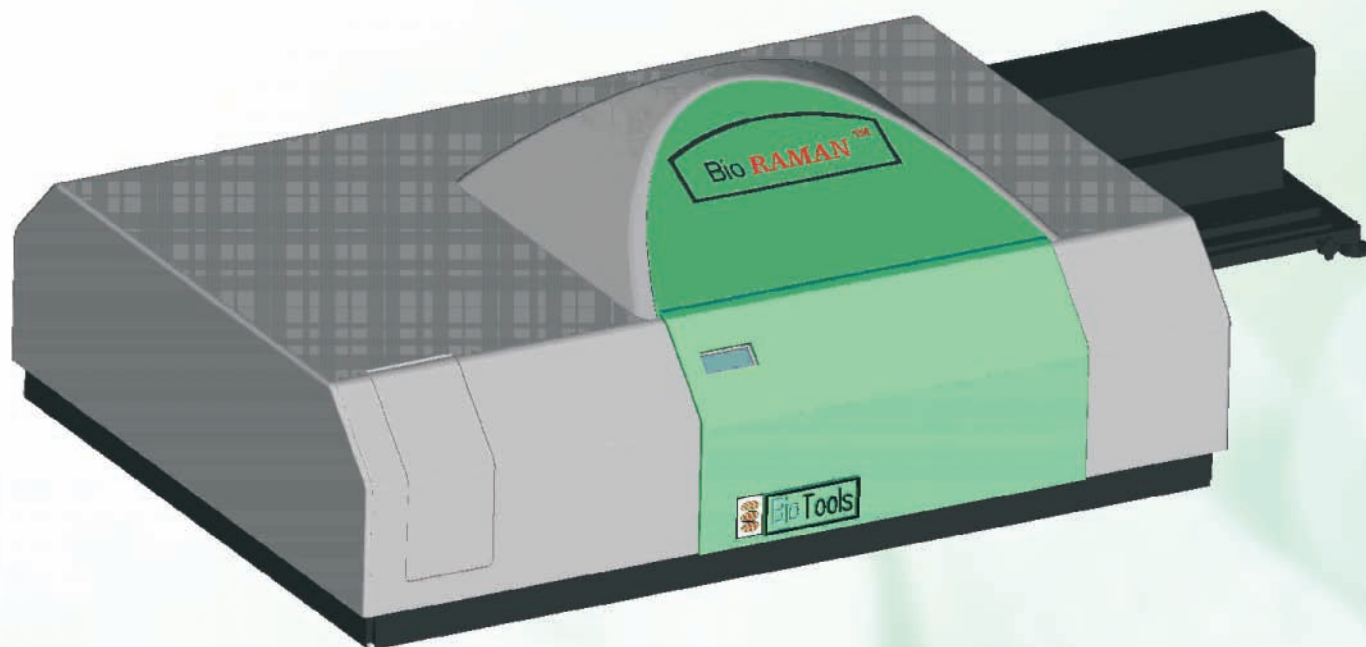


# BioRAMAN™

## An Extremely Fast Collection Raman Spectrometer



BioTools is proud to introduce the BioRAMAN: an extremely fast collection Raman spectrometer.

The spectrometer is designed for over 90% collection efficiency resulting in a very high quality spectra obtained with very short collection times. It is recommended for *studies of biological systems in water, systems often plagued by low signals.*

Upgrade available to the ChiralRAMAN Raman optical activity (ROA) spectrometer with the addition of circular polarization and artifact elimination optics

### Benefits:

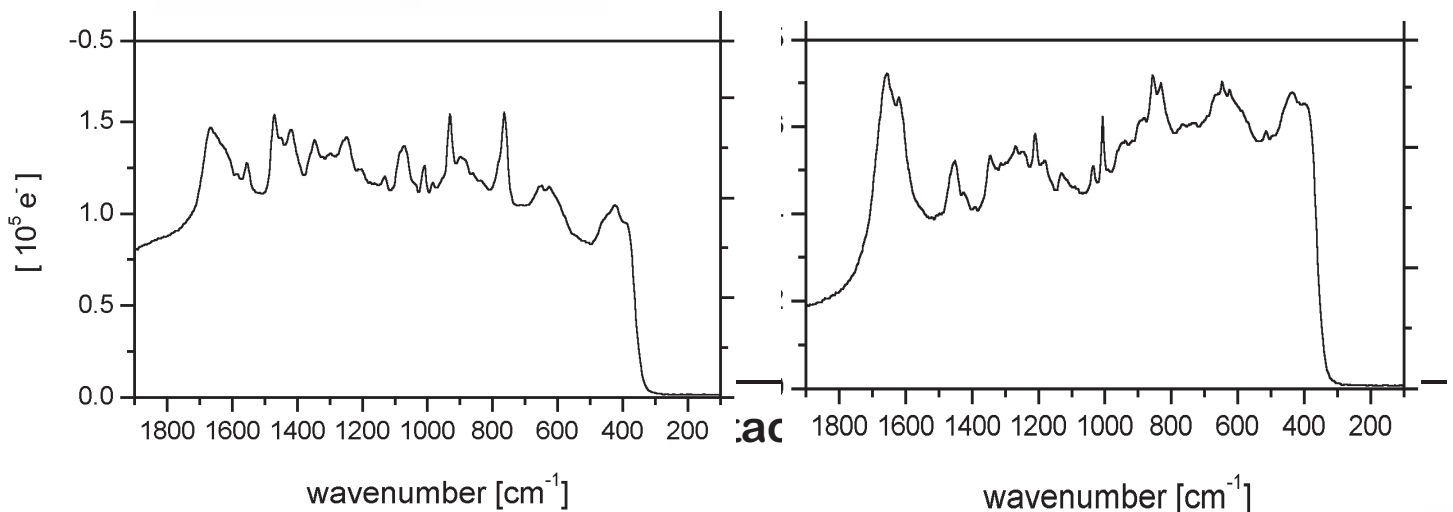
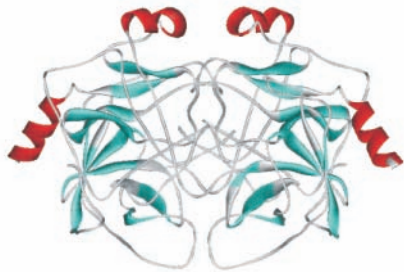
- A very high signal-to-noise ratio spectra in milli-seconds collection time

### Applications:

- Determination of conformations of biological molecules such as proteins, nucleic acids, sugars and viruses
- Kinetic studies
- Protein folding studies

# Application Example

## 1. Protein Conformational Studies



**Raman spectra of chymotrypsin (left panel) and insulin (right panel) in water.  
Collection time - 147 msec.**

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