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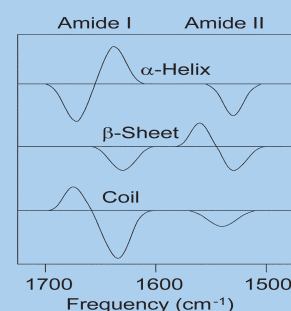
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Vibrational circular dichroism: Chiroptical analysis of biomolecules

Tohru Taniguchi, Nobuaki Miura, Shin-Ichiro Nishimura and Kenji Monde

Vibrational circular dichroism (VCD) spectroscopy, a recently developed chiroptical technique which senses the chiral properties of molecules in the infrared region, has developed into an efficient analytical tool for biomolecular studies. Some practical aspects of VCD are described including the fundamental concept of VCD, instrumentation specifics of some current commercial VCD spectrometers and an experimental methods for obtaining accurate VCD spectra. We also provide some examples of VCD applications to biomolecules including determination of absolute configuration, secondary structure analysis of peptides and proteins, and carbohydrate chiral analysis together with some recently reported topics. 246



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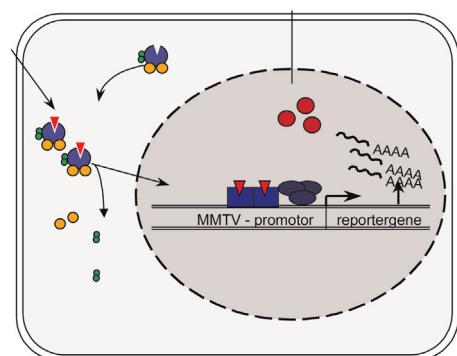
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