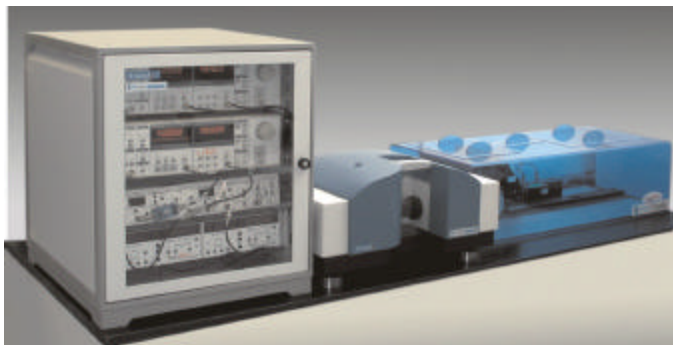
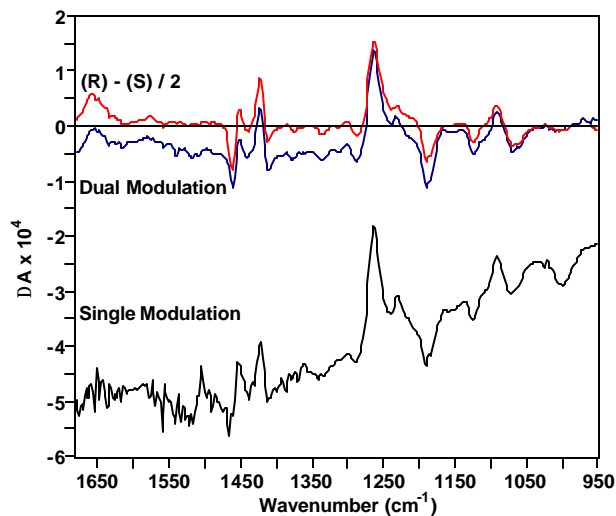


DETAILED ITEMS DESCRIPTION

*DualPEM*TM ACCESSORY BENCH FOR CHIRAL*IR*TM

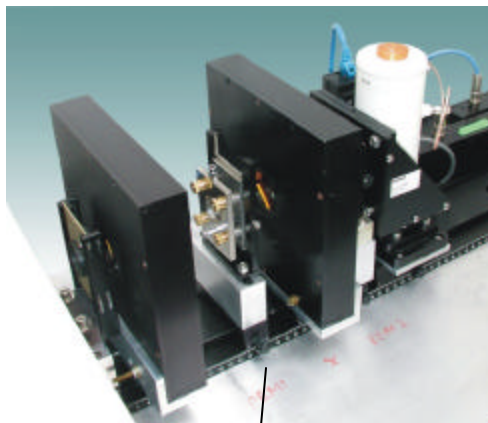


The *DualPEM*TM is an accessory bench to the Chiral*IR*TM VCD spectrometer from BioTools. The accessory provides improvement and stabilization of the VCD baseline by reduction in the level of birefringent artifacts.



The accessory is set-up by re-directing the light beam from the Chiral*IR* interferometer to a side port. ZnSe photoelastic modulator and detector assembly that includes the focusing lens are removed from inside the Chiral*IR* and re-configured on a rail system, with an addition of second ZnSe modulator. Each modulator is referenced to its own lock-in and their respective signals subtracted in real time.

The sample compartment is located between the two modulators, and can be somewhat varied in size.



Sample compartment

The accessory is housed in a Plexiglas case with inlets for air purge. The Chiral/IR cover will be either provided with a drilled hole for a side beam or the hole will be drilled before *Dual*PEM accessory is installed.

Chiral/IR Windows-based integrated software is used for data acquisition and analysis.

Performance:

- Baseline deviation from zero for the open beam sample compartment is less than $\pm 1 \times 10^{-5}$ for any user-selected 500 cm^{-1} window in the spectral range 850 to 1800 cm^{-1}

Installation and After-Sales Service

- 2 days on-site set-up, accessory commissioning and training
- BackIR Guarantee: full refund if not satisfied with accessory performance within 30 days of delivery, and full instrument manufacturer guarantee on the PEM and lock-in amplifier.