

Spectrometru de Dicroism Circular Vibrational Chiral **IR-2X™**

O noua metoda spectroscopica pentru determinarea structurilor biomoleculare
determinarea configuratiei absolute a moleculelor chirale

Configuratie/ caracteristici tehnice:

Interferometru corner – cube; domeniul spectral (6500 – 800)cm⁻¹

Sursa de radiatie IR de tip dual cu raport semnal/zgomot (S/N) imbunatatit

~3.6 fata de un sistem cu o singura sursa

Detector **MCT** cu fereastra de ZnSe racit cu azot lichid

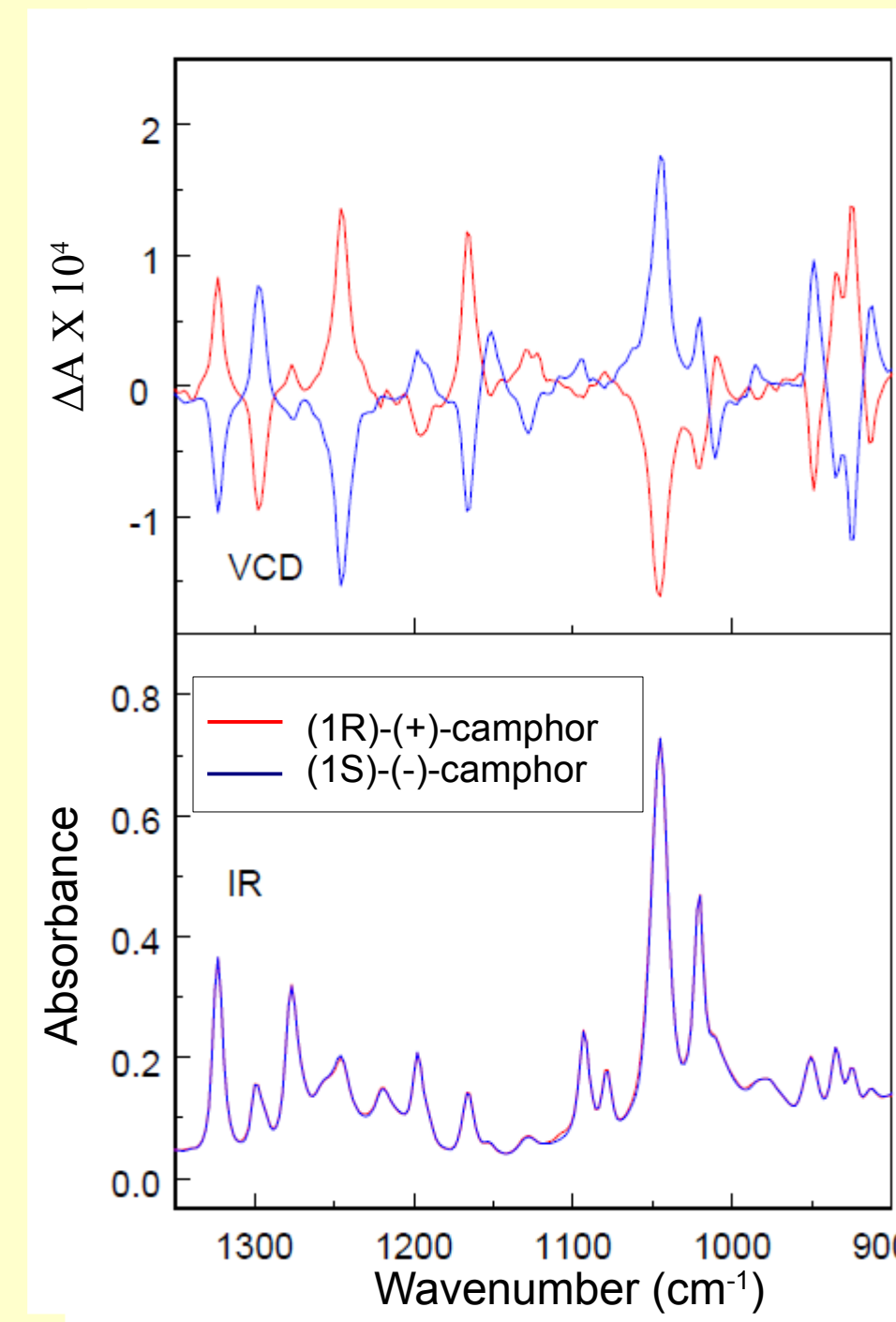
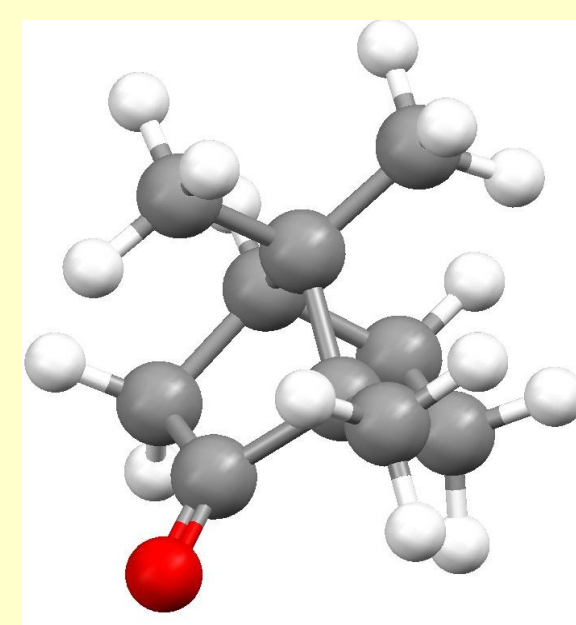
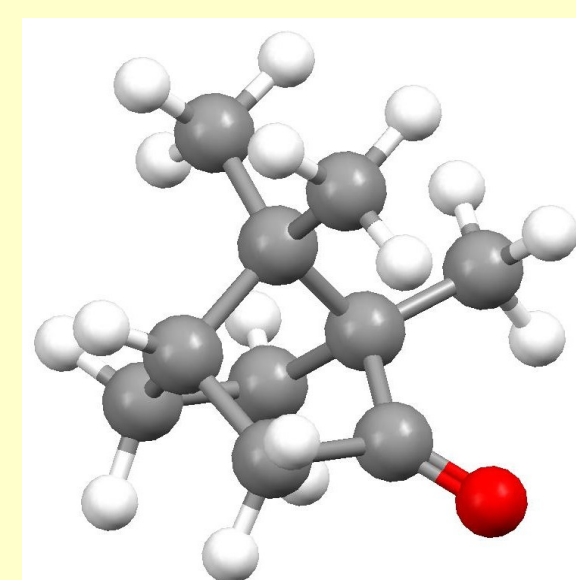
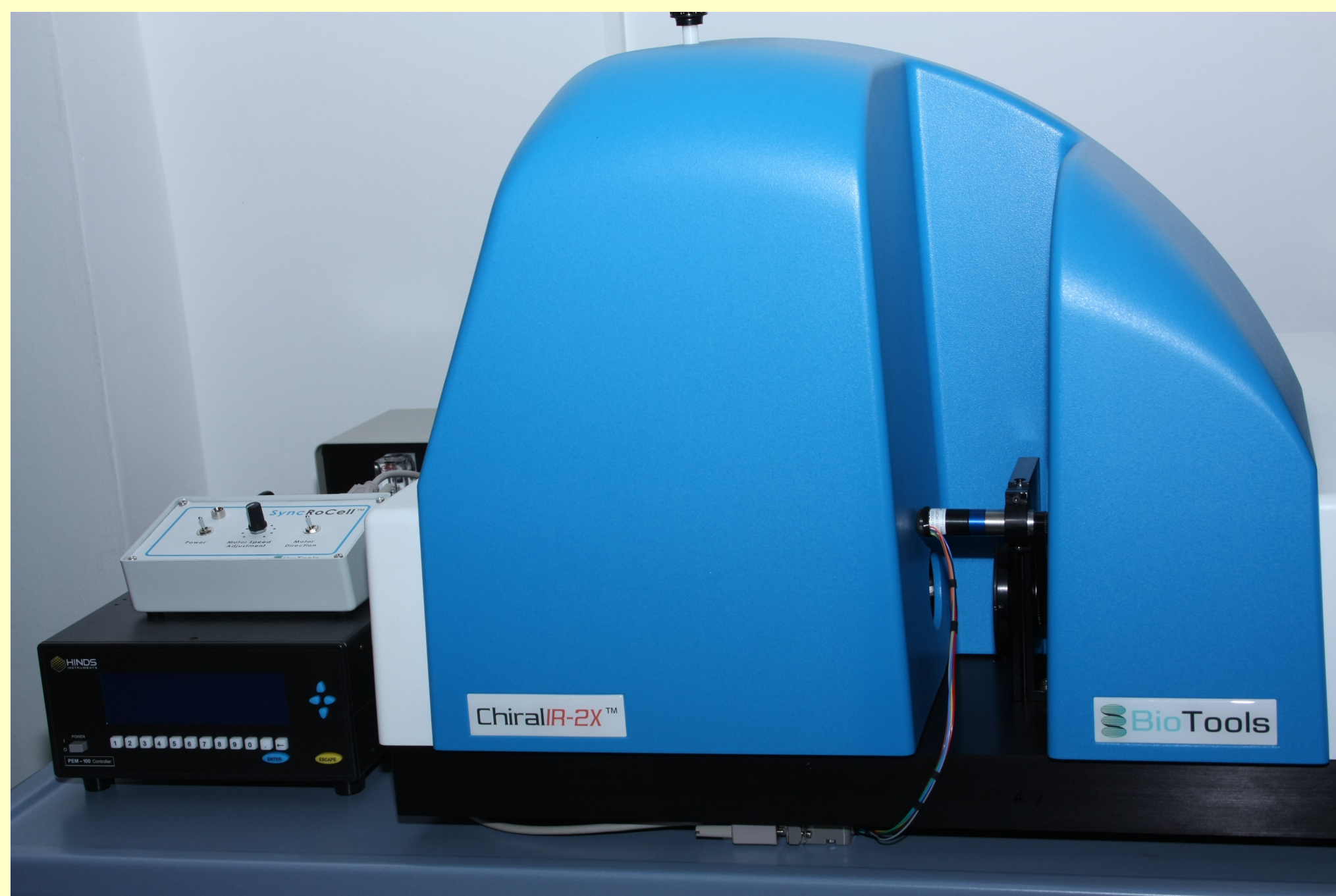
Rezolutie spectrala: 32 – 1 cm⁻¹

Modulator fotoelastic PEM – 37kHz AR – controlat digital

Domeniu spectral modulat (cu polarizor din KRS-5): 4000 – 850 cm⁻¹

Sistem rotativ a celulei de masura – **SyncRoCell**

Sistem de termostatare a celulelor de masura – prin efect Peltier



Structura moleculara a (1R) (+) camphor
si (1S) (-) camphor

Spectrele VCD si IR ale
(+)-R- camphor (linia rosie)
si (-)-S-camphor (linia albastra)

New Approaches to the Determination of Absolute Configuration for Chiral Pharmaceuticals,
Laurence A Nafie (<http://www.touchbriefings.com/pdf/750/ACFEDB.pdf>)



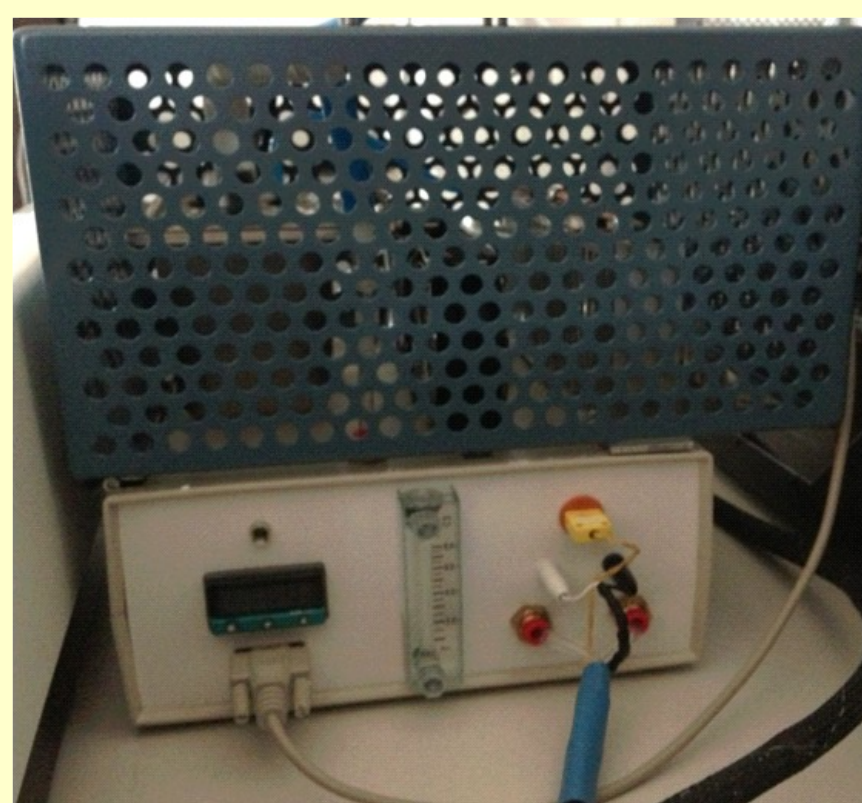
Modulator fotoelastic



Sistem rotativ



Celula CaF₂



Sistem de termostatare

Aplicatii:

- *determinarea configuratiei absolute
- *analiza conformationala a moleculelor biologice (molecule mici, biomolecule cum sunt peptide, proteine...)
- *determinarea conformatiilor stereo-specifice ale moleculelor chirale in solutie
- *determinarea directa excesului enantiomeric (%ee) fara separare enantiomeric sau derivatare.