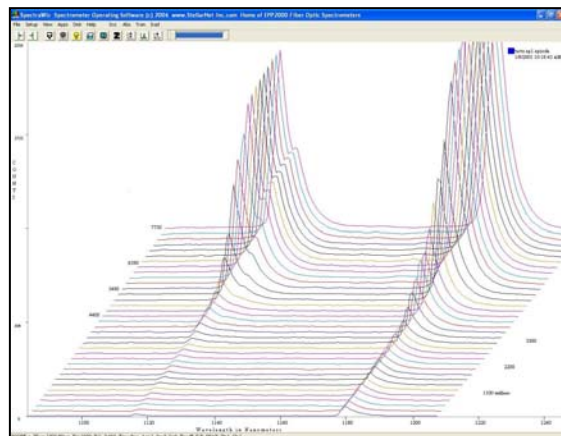


## ➤ ChemWiz Concentration Analyzer

- **Application** panel works with **live spectra** to allow concentration calibration using single wavelength PLS.
- **Load** previously developed PLS chemical calibrations for concentration display of unknown samples.
- **Episodic capture** for kinetics and time series analysis
- Performs single wavelength linear **PLS calibrations**.
- Ideal for in-line **batch** and on-line **process monitoring**



Spectrum of simulated chemical reaction

## ➤ Transmission/Absorbance Studies

- **Dip Probe** – fast, easy sampling of liquids.
  - ATR probes available for dark, viscous liquids
- **Cuvette** – 1 cm standard pathlengths
  - Adjustable fixtures available for longer cells
- **Integrated cuvette/light sources**
  - Compact, cost-effective alternative



UV-VIS-NIR system covering 280-1700nm range, with cuvette accessory

## ➤ UV-VIS & Fluorescence

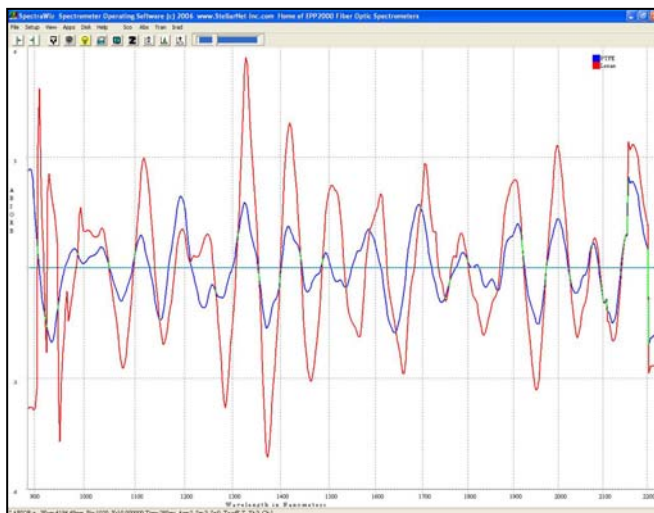
- **Measure deep UV** down to 190nm ultra low stray light **concave gratings** optics that do not use mirrors.
- **Concave gratings** focus a flat field to the detector array providing uniform resolution.
- **LED excitation source** for low cost alternative to laser or bandpass filters.



Dip probes used to measure color, concentration, or kinetics of liquids

## ➤ NIR for Compound Identification

- **Neural Network** software package available for quantitative analysis of unknown samples.
- Measure from **900nm up to 2.3 um.**
- **Combine with UV-VIS** system to cover entire the 200-2200nm range
- Perform color and compound ID analysis in real-time



2<sup>nd</sup> Derivative data of various plastics, used for identification in recycling plants

**Spectrometers include fiber optic input and USB2 interface to PC plus SpectraWiz software with CD training video**

Item	Description	Price
BLACK-Comet	<b>UV-VIS spectrometer</b> has concave grating. Model C=190-850 or CXR=280-900nm	\$2,750
BLACK-Comet Super Range	<b>UV-VIS-NIR spectrometer</b> has concave grating. Choose model C-SR=200-1080nm or choose model CXR-SR = 220-1100nm.	\$3,495
NIR-InGaAs-512	<b>RED-Wave NIR spectrometer</b> for 900-1700nm with 512 element cooled PDA.	\$13,125
NIR-InGaAs-1024	<b>RED-Wave NIR spectrometer</b> for 1000-1700nm with 1024 element cooled PDA.	\$17,125
NIRx-InGaAs-512	<b>RED-Wave NIRx spectrometer</b> for 900-2300nm with 512 element cooled PDA.	\$17,995
<b>Fiber Optic accessories for Transmission/Absorbance/Fluorescence</b>		
CUV1	4-way cuvette Holder with 3 lenses – 1 lens position at 90 deg for fluorescence	\$595
TFX-3	Adjustable pathlength Transmission Fixture with 2 LENS-QCOLS	\$495
DP400-VISNIR	Dip Probe for Vis-NIR (for UV-Vis-SR add \$100)	\$1295
<b>Fiber Optic light sources</b>		
SL1-Filter	SL1 10,000 hour halogen light source with filter holder nose and filter.	\$595
SL1-CUV	SL1 10,000 hour halogen light source with integrated cuvette holder	\$655
SL1-LED	Miniature fiber optic light source with replaceable LED. Includes set of 6 LED's	\$695
SL3	Fiber optic deuterium light source with 4,000 hour Hamamatsu L2D2 bulb	\$1495
SL5	Deuterium + Tungsten UV/Vis/NIR Lamp (for integrated cuvette holder add \$305)	\$1045