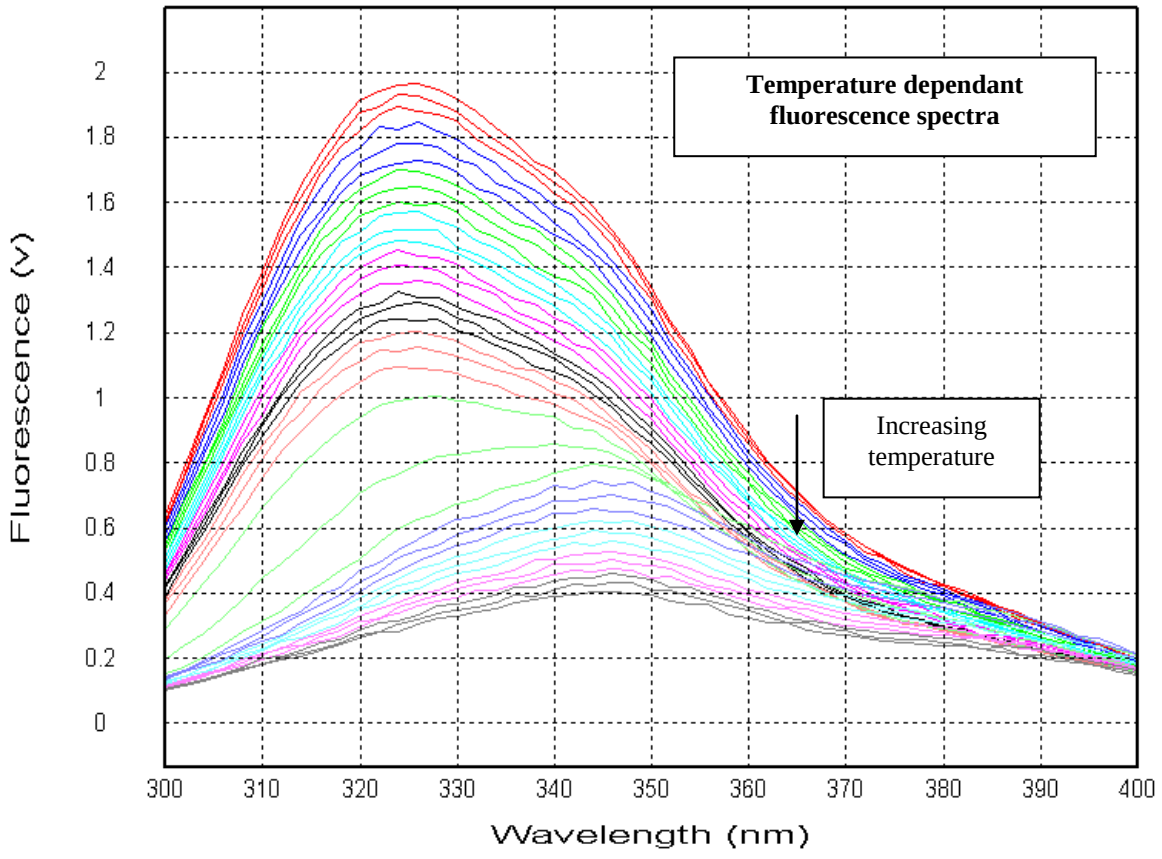
Chirascan: Fluorescence Scanning as a Function of Temperature.

The data below was collected on Chirascan in April 2010 as part of a customer evaluation.

Temperature dependant fluorescence spectra

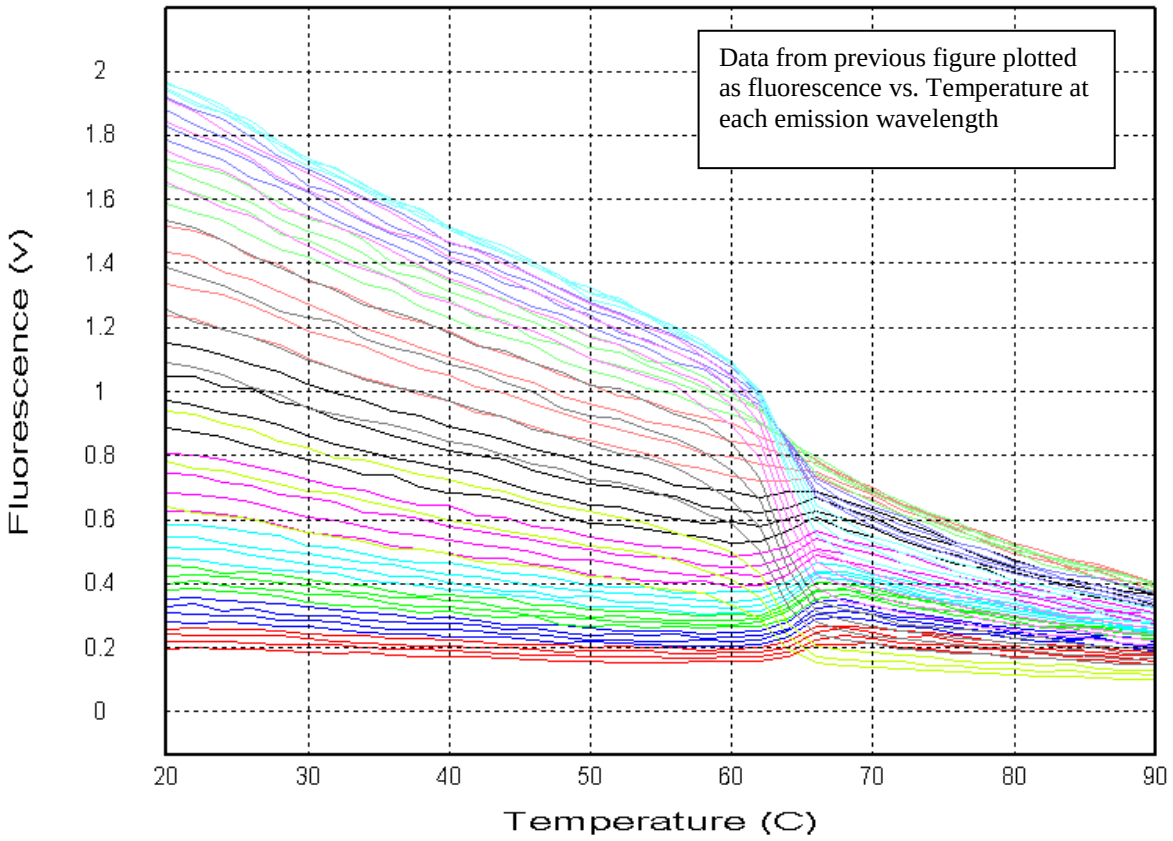
The same collection conditions (continous temperature-ramping, acquiring one spectra every 2^0C) was also used to collect the emission spectra shown below under the experimental conditions tabulated. (The Chirascan accessories: TF.3 fluorescence detector, and SEM.3 emission monochromator are required for this experiment.)

Samples	**Apo-Transferrin**
Solvent	**Na Phosphate buffer**
Concentration	**0.1 mg/mL**
Bandwidth	**1 nm excitation, 8.5 nm emission**
Cell Pathlength	**10 mm**
Wavelength range	**300 - 400 nm**
Excitation wavelength	**280 nm**
Step size	**1 nm**
Scan Time	**2 minutes per spectrum**
Temperature range	**20 - 90°C**
Ramp rate	**1°C per minute**
Smoothing	**RAW data (no smoothing)**



A shift in the spectral peak with increasing temperature is clearly apparent.

... as with the CD data, these data can also be viewed in terms of the temperature dependence at each emission wavelength, as shown below.



The emission spectra at 20^{0}C before, and after the experiment were also recorded (below)