PTi QuantMaster 40
Fluorescence Anisotropy
Standard Operating Procedure

- Install the appropriate filters. (Please see Tony Adamo)
- Load a standard Polarizing Method

- Click on Setup and choose one of the following modes of operation:
  - Time-based
  - Emission

- Select the ‘Polarizers’ tab and check off ‘Use Polarizers’
  - follow the instructions below

Normal polarizer operation

G Factor
Click the G-Factor radio button.
Acquire background values if desired.

If a Timebased scan is used, an average value of the G-Factor will be calculated and saved as a G-Factor Global Value. If an emission scan is to be done, the G-Factor will vary with wavelength. In this case, a derived trace on the Traces tab should be created with Name = G-Factor, Source 1 = HV trace, Function = Gfactor, Source 2 = HH trace. After the scan is done, right-click on the G-Factor trace, Create Lookup Table, Name = Gfactor, Type = Gfactor, OK.

Polarization/Anisotropy

Click the Polarization/Anisotropy radio button.
Acquire background values if desired.
Choose the G-Factor to use by the radio buttons.

Either Use:
1) Use Last Acquired Global Value: This refers to the most recent G-Factor Global Value (a scalar value) acquired by a timebased scan.
2) Use Value: Enter a value into the text box.
3) Use Lookup Table: Use a Lookup Table that is saved as G-Factor values vs. emission wavelength.
   Choose: Opens a list of saved G-Factor Lookup Tables. Choose one from the list.
   Configure: Opens a Lookup Table editor where you can modify individual X and Y values of the Lookup Table.
   On the Traces tab, create a derived trace with Name = Polarization or Anisotropy, Source 1 = VV trace,
Function = Polarization or Anisotropy, Source 2 = VH trace.