The PTI QuantaMaster™ fluorescence spectrofluorometer series from Photon Technology International offers high performance and the flexibility of PTI’s modular “Open Architecture” design.

The PTI QuantaMaster™ 400 steady state spectrofluorometer is the most sensitive bench-top fluorometer on the market today. Its signal to noise is 20,000:1, allowing the most minute traces of fluorescent materials to be detected and identified in samples. It features state-of-the-art high throughput monochromators with a triple motorized grating turret for easy extension of the spectral range and motorized flipping mirrors to make it easy to work with additional light sources and detectors. Together with PTI’s own FelixGX software, the PTI QuantaMaster™ 400 will meet your highest demands and be welcomed in a multiple user environment. So, whether you are a beginner, or an experienced fluorescence spectroscopist, the PTI QuantaMaster™ 400 is designed to meet all of your needs and your budget!

STANDARD SYSTEM
1. High Intensity Continuous Xenon Lamp
2. Adjustable Slits
3. Excitation Monochromator
4. Excitation Grating (motorized triple-grating turret)
5. Sample Compartment
6. Excitation Correction
7. Emission Monochromator
8. Emission Grating (motorized triple-grating turret)
9. Detector

OPTIONAL UPGRADES
10. Dual Emission (T-format)
11. Phosphorescence Upgrade
12. NIR Upgrade
13. Lifetime Upgrade

Applications
- Milliseconds kinetics
- Protein folding
- Protein-protein interactions
- Protein-drug interactions
- DNA binding
- FRET
- Polarization/anisotropy
- Quantum dots
- Nanomaterials
- Chemiluminescence
- Bioluminescence
- And many more!

Accessories
- Peltier sample heater/cooler with rapid temperature control
- Solid sample holder
- Powdered sample holder
- Liquid nitrogen and helium cryostat
- Cold finger dewar
- Muscle strip accessory
- Absorption accessory
- TIRF accessory
- Microcuvette
- Polarizers
- Four-position sample holder
- Remote sensing accessory
- Integrating sphere
- Stopped flow accessory
- Titrator

Upgrade Options
- Dual Emission (T-format)
- NIR Upgrade
- Phosphorescence Upgrade
- Lifetime Upgrade
- Microscopy Upgrade
## Specifications

The following specifications are for the standard PTI QuantaMaster™ system. Options and upgrades may be available upon request.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection Limit</td>
<td>400 attomolar of fluorescein solution in 0.1 M NaOH</td>
</tr>
<tr>
<td>Signal-to-Noise Ratio</td>
<td>20000:1 (16000:1 with one single one double and 14000:1 with two double monochromators)</td>
</tr>
<tr>
<td>Maximum Data Acquisition Rate</td>
<td>1,000,000 data points per second</td>
</tr>
<tr>
<td>Minimum Data Acquisition Rate</td>
<td>1 point per 1000 seconds</td>
</tr>
<tr>
<td>Emission Range</td>
<td>185 nm to 680 nm (optional to 1010 nm)</td>
</tr>
<tr>
<td>Light Source</td>
<td>75 W xenon arc lamp standard (150 W to 1000 W available)</td>
</tr>
<tr>
<td>Excitation Monochromator</td>
<td>Coma-aberration corrected, asymmetrical, excitation optimized, Czerny-Turner design</td>
</tr>
<tr>
<td>Emission Monochromator</td>
<td>Coma-aberration corrected, asymmetrical, emission optimized, Czerny-Turner design</td>
</tr>
<tr>
<td>Grating Turret</td>
<td>Triple-grating, backlash-free, software controlled turret</td>
</tr>
<tr>
<td>Focal Length</td>
<td>300 mm</td>
</tr>
<tr>
<td>Excitation Grating</td>
<td>1200 line/mm 300 nm blaze (other gratings available upon request)</td>
</tr>
<tr>
<td>Emission Grating</td>
<td>1200 line/mm 400 nm blaze (other gratings available upon request)</td>
</tr>
<tr>
<td>Optional Grating</td>
<td>75–2400 line/nm and holographic models available</td>
</tr>
<tr>
<td>Stray Light Suppression</td>
<td>7 x 10^{-7}</td>
</tr>
<tr>
<td>Wavelength Accuracy</td>
<td>± 0.3 nm</td>
</tr>
<tr>
<td>Wavelength Repeatability</td>
<td>± 0.02 nm</td>
</tr>
<tr>
<td>Wavelength Resolution</td>
<td>0.022 nm</td>
</tr>
<tr>
<td>Slewing Speed</td>
<td>200 nm per second</td>
</tr>
<tr>
<td>Detection</td>
<td>Multimode: Photon counting, 3 analog (fast, medium, slow response), direct and single shot transient digitizer (SSTD) mode</td>
</tr>
<tr>
<td>System Control</td>
<td>Computer/ASOC-10 interface with FelixGX spectroscopy software</td>
</tr>
</tbody>
</table>

PTI has a policy of continuous product development and reserves the right to amend specifications without prior notice.