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Spectrofluorometer with attomole sensitivity

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Creatv MicroTech introduces its ultra-sensitive spectrofluorometer for analysis of small volume samples (1 to 35 microliters) and low analyte concentrations. To achieve this level of sensitivity, Creatv's instrument measures the background light and provides the fluorescence signal net of the background. The automated user interface connects to a nearby PC by USB cable.

Configured with a 639 nanometer illumination source, Creatv's instrument can detect CyTM-5 dye (GE Healthcare) in quantities below 35 attomole and SPHEROTM Sky Blue FP-0870 beads (Spherotech, Inc.) in quantities as low as 3 or 4 beads in a sample size of 35 microliters. Illumination wavelengths are available from 405-635 nm to excite most available organic dyes and fluorescent semiconductor nanoparticles. Detection wavelengths are displayed from 390 nm to 790 nm. Custom configurations are available for shorter or longer wavelengths. The instrument uses a low cost disposable cuvette.

Examples for Cy-5 and Sky Blue are shown in the Figures below.

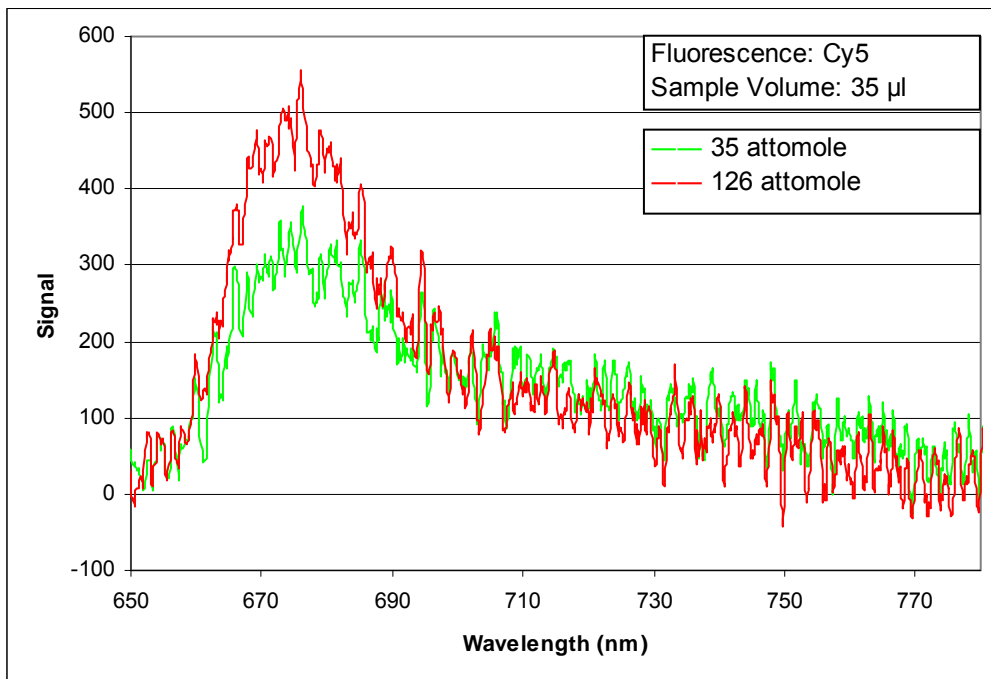


Figure 1. Measured fluorescence for Cy-5 dye net of the background signal.

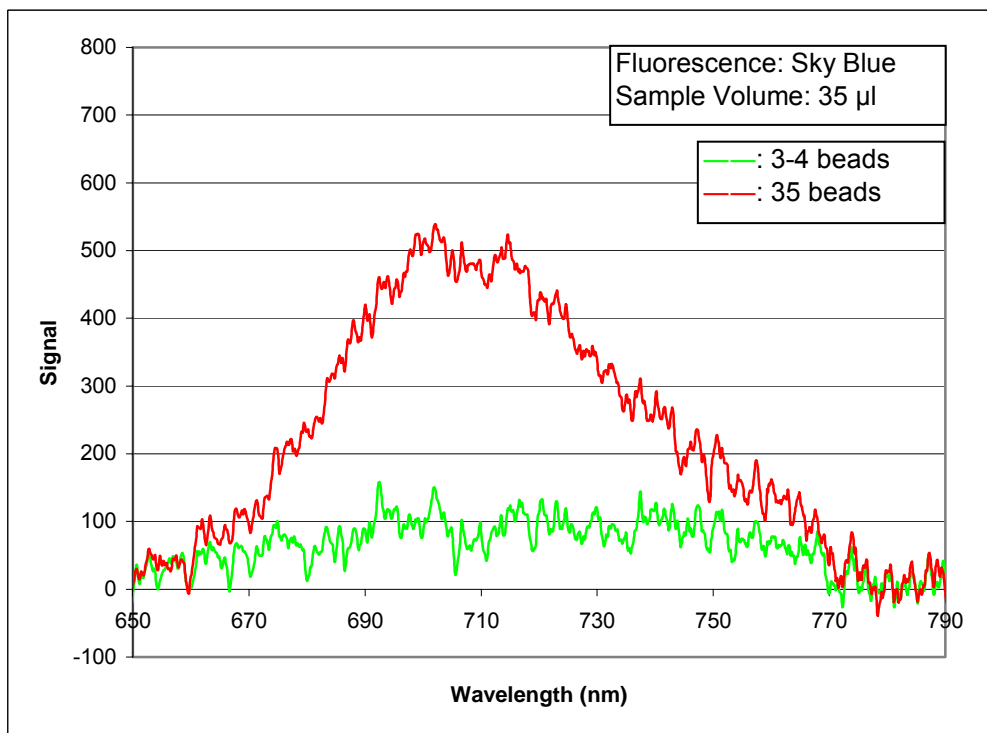


Figure 2. Measured fluorescence for Sky Blue beads net of the background signal.