

The Application of Fluorescence Spectroscopy in the Mercury Ion Detection

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1 Introduction of Fluorescence

1.1 The background of fluorescence

1.2 The principle of fluorescence

1.3 The characteristic of fluorescence

2 Instrument of Fluorescence Spectroscopy

2.1 Spectrofluorometers

2.2 Light Sources

2.3 Monochromators

2.4 Optical Filters

2.5 Signal Purity

2.6 Attention in Sample Preparation

3 Fluorophores

3.1 Intrinsic Fluorophores and example

3.2 Extrinsic Fluorophore and example

3.3 Red and Near - Infrared (NIR) Dyes and example

3.4 Long - Lifetime Probes and example

4 The Application

Ref: Joseph R. Lakowicz, Principles of Fluorescence Spectroscopy, 3rd Edition.