

EXPERIMENTAL PROCEDURES

1.- Experimental procedure used for obtaining the results given in Figure 5.

1.a) Coraline solutions

Coraline solutions 100 mg L⁻¹, were prepared by dissolving the solid coraline in the corresponding solvents. The following dilute solutions were made fresh just before using: 0.5, 1, 2, 3 and 5 mg L⁻¹.

1.b) Apparatus and experimental conditions

All measurements were carried out in a Photon Technology International (PTI) Time Master fluorescence spectrometer working in a L-configuration (model TM-2/2003-PTI). Slit widths of 2 nm (excitation) and 5 nm (emission) were selected. A 4 mL Hellma QS 101 quartz cuvette of 1 cm pathlength was used. Excitation and fluorescence wavelengths used in each solvent were those corresponding to the maximum absorbance and fluorescence:

CHCl₃: $\lambda_{\text{abs}}=404$ nm, $\lambda_{\text{flu}}=456$ nm;

Glacial acetic acid: $\lambda_{\text{abs}}=406$ nm, $\lambda_{\text{flu}}=466$ nm;

CH₂Cl₂: $\lambda_{\text{abs}}=402$ nm, $\lambda_{\text{flu}}=459$ nm;

Acetonitrile: $\lambda_{\text{abs}}=406$ nm, $\lambda_{\text{flu}}=469$ nm;

Methanol: $\lambda_{\text{abs}}=408$ nm, $\lambda_{\text{flu}}=461$ nm;

Formic acid: $\lambda_{\text{abs}}=404$ nm, $\lambda_{\text{flu}}=467$ nm;

Bi-distilled water: $\lambda_{\text{abs}}=410$ nm, $\lambda_{\text{flu}}=471$ nm;

Dimethylsulfoxide: $\lambda_{\text{abs}}=410$ nm, $\lambda_{\text{flu}}=472$ nm;

2.- Experimental procedure used for obtaining the results given in Figure 7.

2.a) Fluorophores solutions

Berberine, auramine and coptisine solutions 100 mg L⁻¹, were prepared by dissolving the corresponding solids reagents in methanol. From these, 1 mg L⁻¹ diluted solutions were made fresh just before using.

2.b) Dodecanol/Methanol mixtures

Were prepared by mixing the appropriate volumes of both liquids (99% purity).

2.c) Apparatus and experimental conditions

All measurements were carried out in a Photon Technology International (PTI) Time Master fluorescence spectrometer working in a L-configuration (model TM-2/2003-PTI). Slit widths of 2 nm (excitation) and 5 nm (emission) were selected. A 4 mL Hellma QS 101 quartz cuvette of 1 cm pathlength was used. Excitation and fluorescence wavelengths used were those corresponding to the maximum absorbance and fluorescence:

Berberine: $\lambda_{\text{abs}}=354$ nm, $\lambda_{\text{flu}}=520$ nm;

Coptisine: $\lambda_{\text{abs}}=402$ nm, $\lambda_{\text{flu}}=559$ nm;

Auramine: $\lambda_{\text{abs}}=420$ nm, $\lambda_{\text{flu}}=487$ nm;