Solvent effects of *N*-nitroso, *N*-(2-chloroethyl), *N′*,*N′*-dibenzylsulfamid and its copper(II) and cobalt(II) complexes: fluorescence studies

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Description
The structure of *N*-nitroso, *N*-(2-chloroethyl), *N′*,*N′*-dibenzylsulfamid (CENS) was established by X-ray crystallography. The atomic coordinates, factors of isotropic thermal agitation, bond lengths and valence angles were determined. The solvent effects on the electronic absorption and fluorescence spectra of CENS were investigated at room temperature. The effects of solvent polarity and of hydrogen bonding were interpreted by means of linear solvation energy relationships (LSERs). Multiple linear regression analysis indicated that the hydrogen donation properties of the solvent play an important role in determining the position of the absorption maximum, while the classical polarity of the medium is the only dominating parameter in determining the emission maximum and the Stokes' shift. Complexation of the investigated compound by two different transition metal ions was studied. Fluorescence …