

Proton transfer reaction of a new orthohydroxy Schiff base in some protic and aprotic solvents at room temperature and 77 K.

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Rok wydania

2005

Czasopismo

Spectrochimica Acta Part A-
Molecular and Biomolecular
Spectroscopy

Numer woluminu

62

Strony

126-131

DOI

10.1016/j.saa.2004.12.015

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

The ground and excited state proton transfer reactions of a new orthohydroxy Schiff base, salicylidine-3,4,7-methyl amine (SMA) has been studied by means of absorption, emission and time resolved fluorescence spectroscopy in some polar protic and aprotic solvents at room temperature and 77K. The spectral behavior of SMA has been investigated both in neutral and basic conditions. The intramolecularly hydrogen bonded enol and zwitterion have been detected in pure methanol and ethanol, the anion is detected in basic condition. At 77K, SMA shows phosphorescence in pure methanol and ethanol. From nanosecond measurements and quantum yields of fluorescence, we have estimated the decay rates of proton transfer reaction in methanol and ethanol.

Adres publiczny

<https://doi.org/10.1016/j.saa.2004.12.015>

Strona internetowa wydawcy

<http://www.elsevier.com>