

Negative Solvatochromism of Ferrocenyl Methine Dyes

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Abstract. A novel solvatochromic ferrocenyl methine dyes has been synthesized by condensation of ferrocen-3-carboxaldehyde with active methylene compounds under Knoevenagel conditions and characterized by UV-*vis* in a range of solvents. Compound 1a has a red shift in π - π^* and a blue shift increases with solvent polarity in the MLCT (M \rightarrow A) while 1b-1d variation of red as well as blue shifts from both states. No d-d transition is observed in these compounds. These shifts are interpreted by different dipole moments in the ground and excited state as well as solvent interaction between solute/solvent and H-bonding with the acceptor.