

Ground and Excited State Dipole Moments of BADAN and ACRYLODAN Determined from Solvatochromic Shifts of Absorption and Fluorescence Spectra

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The electric dipole moments in the ground μ_g and excited states μ_e of the fluorescent probes BADAN (6-bromoacetyl-2-dimethylamino-naphthalene) and ACRYLODAN (6-acryloyl-2-dimethylamino-naphthalene) are determined from the solvatochromic shifts of their absorption and fluorescence spectra for two Onsager interaction radii ($a = 4.2$ and 4.6 Å). The obtained values of μ_g and μ_e for BADAN are comparable to those of PRODAN, while for ACRYLODAN they are distinctly greater.

Key words: Solvatochromic Shifts; Dipole Moments in the Ground and Excited States; BADAN and ACRYLODAN-Fluorescent Probes.