# Low-temperature fluorescence of oxystyryls and some of their neutral derivatives

N.V. Pilipchuk, Yu.P. Piryatinski, G.O. Kachkovsky, Yu.L. Slominskii, O.D. Kachkovsky

Show more

+ Add to Mendeley  Share  Cite

https://doi.org/10.1016/j.dyepig.2006.01.046

Get rights and content

## Abstract

The features of the electron structures and molecular geometry in the excited state, as well as the time-resolved fluorescence spectra at room and low temperatures for the series of oxystyryls and some merocyanines are discussed. It is shown that the large Stock's shifts in the cationic oxystyryls containing the high basic terminal groups are mainly caused by solvation in the ground state, and not by the geometrical relaxation. Lowering of the temperature leads to the regular hypsochromic shift, and to the unusual widening of the spectral bands in the pyrido- and quinooxystyryls; the last effect is connected with the existence of an additional component which can be registered by time-resolved spectroscopy.