

# Media Effect upon the Fluorescence Ability of Differently Substituted $\alpha$ -Cyanostilbenes

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The steady state and dynamic photophysical characteristics of  $\alpha$ -cyanostilbene derivatives have been investigated in solution and in polyvinylchloride (PVC) film at 300 K as well as in a frozen matrix at 77 K. While no emission is observed in solution, a significant fluorescence ability is registered both in PVC and frozen media. This fact is attributed to the matrix effect, which lessens the possible intramolecular motions around the central double bond. No phosphorescence at 77 K is observed. The fluorescence lifetimes at 77 K are compared with literature data for similar chemically fixed structures.

*Key words:*  $\alpha$ -Cyanostilbene Derivatives; Fluorescence; Matrix Effect.