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BOOK OF ABSTRACTS

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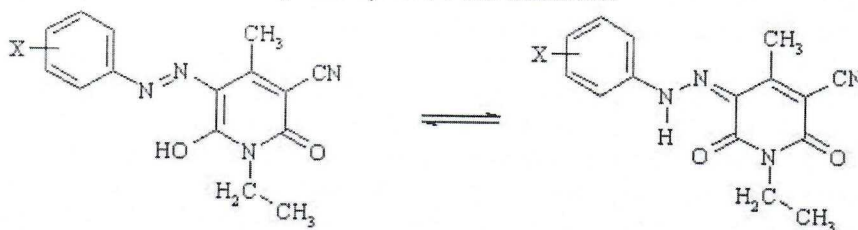
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Solvent and substituent effects on azo-hydrazone tautomerism of some arylazo pyridone dyes

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Disperse monoazo dyes having pyridones as the coupling component exhibit azo-hydrazone tautomerism [1,2]. In this work, ten dyes having the same 1-ethyl-4-methyl-6-hydroxy-3-cyano-2-pyridone have been synthesized (Fig. 1) and fully characterized by melting point, FTIR, ^1H and ^{13}C NMR spectroscopy. Solvatochromism and tautomerism of these dyes have been investigated in twenty one solvents of different polarity. The effects of specific and non-specific solvent/solute interactions on the position of their UV/Vis absorption bands have been evaluated using the Kamlet-Taft and Catalán solvent parameter sets. Furthermore, the effects on the solvatochromic behaviour of different substitution patterns on the aryl moiety have been examined.



X: 1) *o*-OCH₃, 2) *m*-OCH₃, 3) *p*-OCH₃, 4) *o*-NO₂, 5) *m*-NO₂,
6) *p*-NO₂, 7) *o*-Cl, 8) *m*-Cl, 9) *p*-Cl 10) H

Figure 1. Azo-hydrazone tautomerism of investigated arylazo pyridone dyes

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