Supplementary Material

A solid state study of keto – enol tautomerism in three naphthaledene Schiff bases

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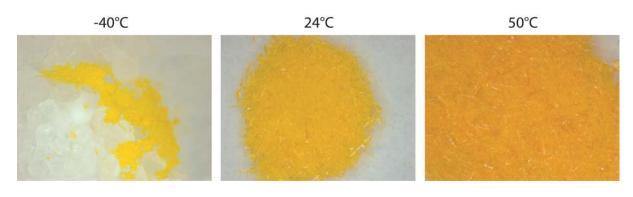
Abstract

Three naphthaledene Schiff bases were synthesized and a detailed analysis by variable temperature X-ray crystallography and solid state electronic spectra was undertaken to assess the tautomeric composition. The crystal structures showed no significant changes despite the compounds changing colour with temperature. Solid state UV spectra were acquired at low temperature and showed that the major absorption band broadened as the temperature was increased. In one compound absorptions were observed that increased in intensity as the temperature increased. For these compounds, the major contribution to the colour change is the broadening of the absorption band as a function of temperature and not the change in enol : keto tautomeric composition.

S2. Observed colour changes:

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Compound 1



Compound 2

-40°C

24 °C

50 °C



Compound 3

