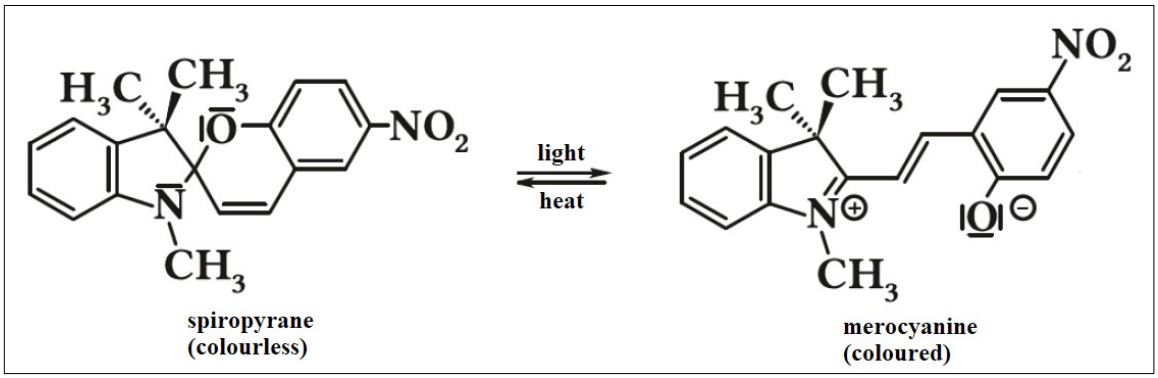
Name: _____ Date: _____

Solvatochromism (Sek. II/supper secondary level)

The solutions of the same substance in different solvents differ in colour

Group 4: Nano-environment

N1 Draw structural formulae showing the intermolecular interacions within the three different solutions. Doing so, include and name the intermolecular forces between a merocyanine molecule and the respective solvent molecules.



N2 Look again at the solutions which have been stored in a dark place after the irradiation in the basic experiment. On the basis of the colours decide whether there is only spiropyrane within the solutions – or if there is some merocyanine, too.

N3 Formulate a *'The…, the…'*-statement in order to point out the correlation between the polarity of the nano-environment, i.e. the solvent molecules, and the stabilization of the merocyanine-zwitterion.