Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Electronic Supplementary Information

Photo-/thermo-chromism of Spiropyran in Alkanes as an

Temperature Abuse Indicator in Cold Chain of Vaccines

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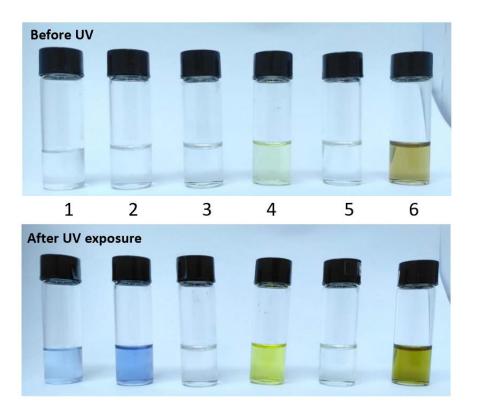


Fig. S1 Photochromism of SP1 in different solvents under UV exposure. Solvents: 1=1,2-dibromoethane; 2=c-hexane; 3=formamide; 4=formic acid; 5=DMSO; 6=ethylenediamine.

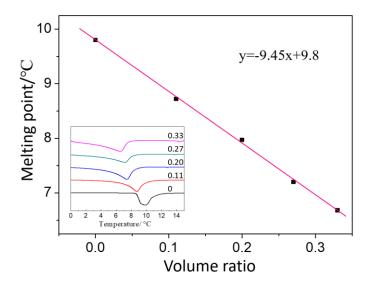


Fig. S2 The freezing point decrease upon the volume fraction of n-tetradecane in the mixture of n-tetradecane and n-pentadecane. The inset shows the corresponding DSC curves.

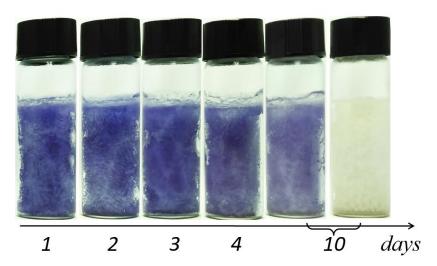


Fig. S3 Color changes of MC2 in frozen mixture of n-tetradecane and n-pentadecane (volume ratio 1:4) at 4° C. At the 10^{th} day sample was melted and refrozen.



Fig. S4 MC1 in frozen mixture of c-tetradecane and n-pentadecane (volume ratio=1:4) at 4° C under visible light. Solution concentration: $30~\mu\text{g/ml}$.