

Supporting Information

Photo-response Behavior of Electrospun Nanofibers Based on Spiropyran- Cyclodextrin Modified Polymer.

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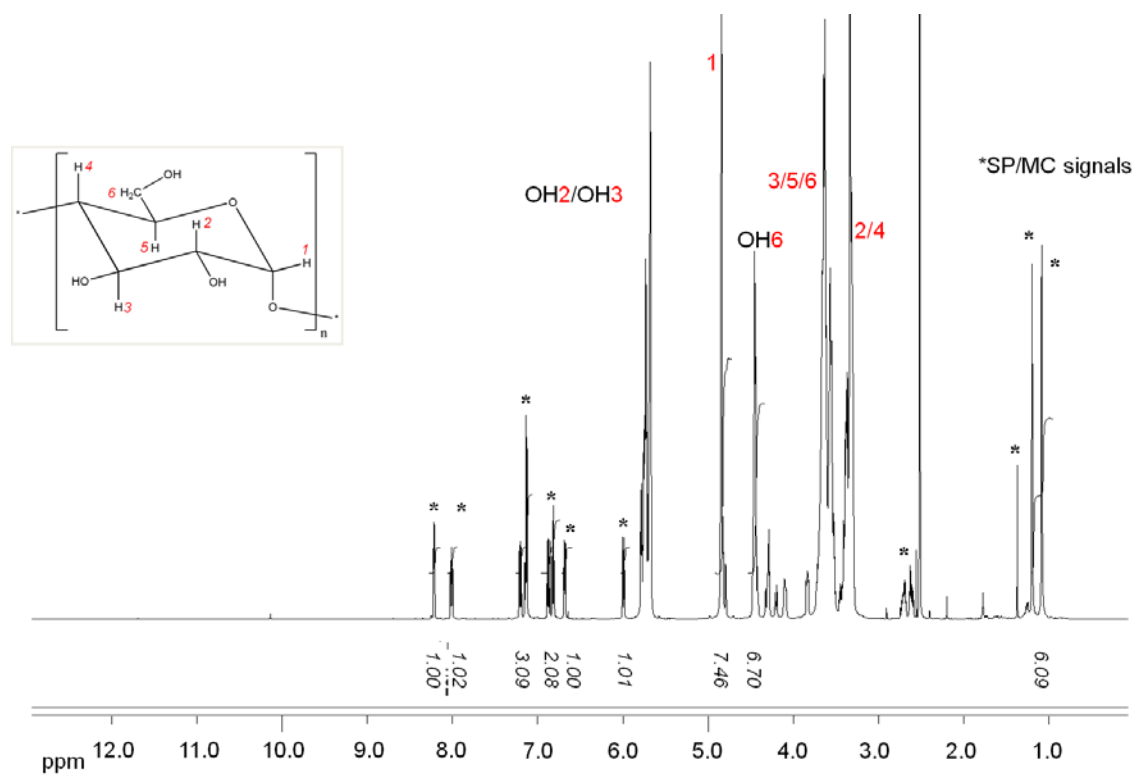
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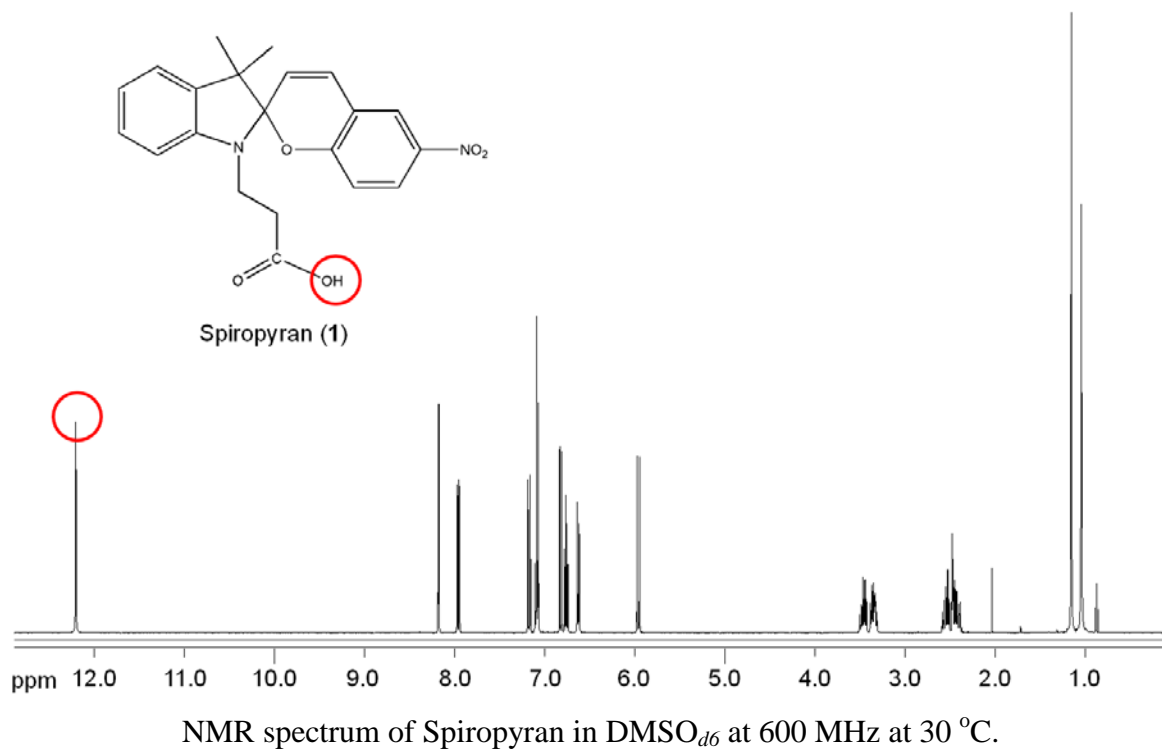
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SI 1 – Nuclear Magnetic Resonance

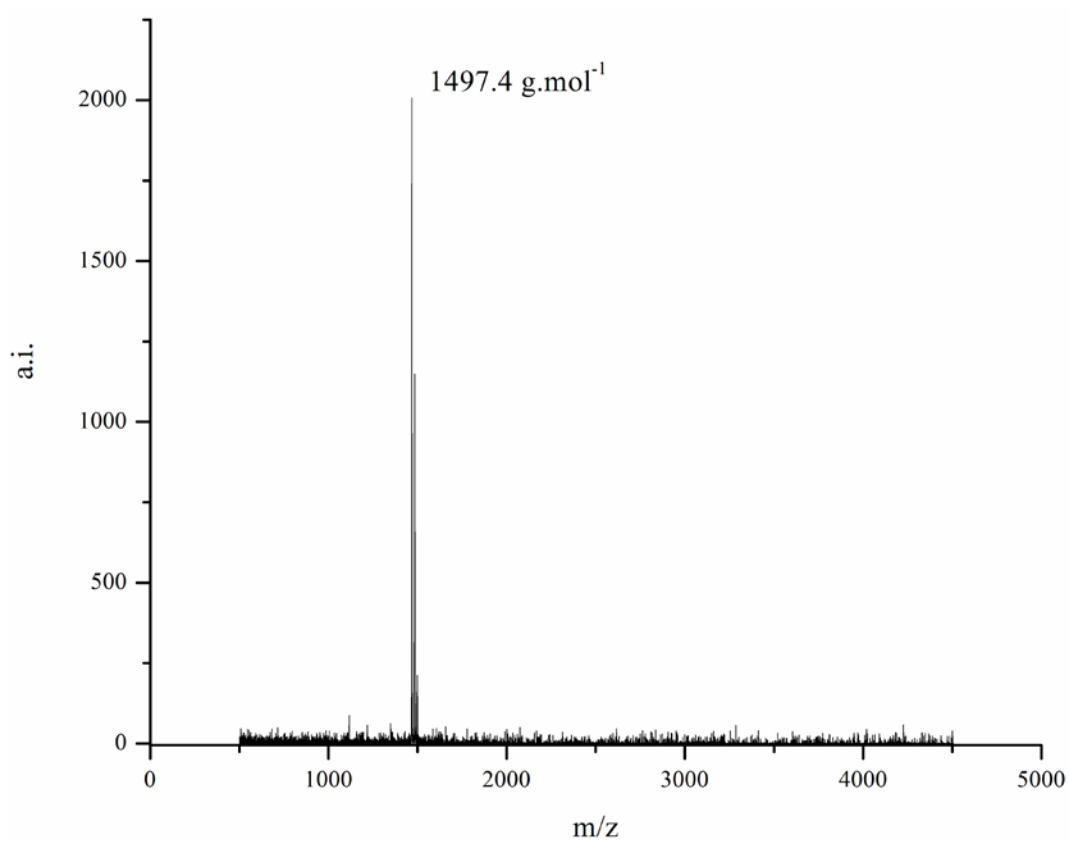


^1H NMR spectrum of $\beta\text{CD}_{\text{SP}}$ in $\text{DMSO-}d_6$ at 600 MHz at 30 °C.

SI 2 – Nuclear Magnetic Resonance

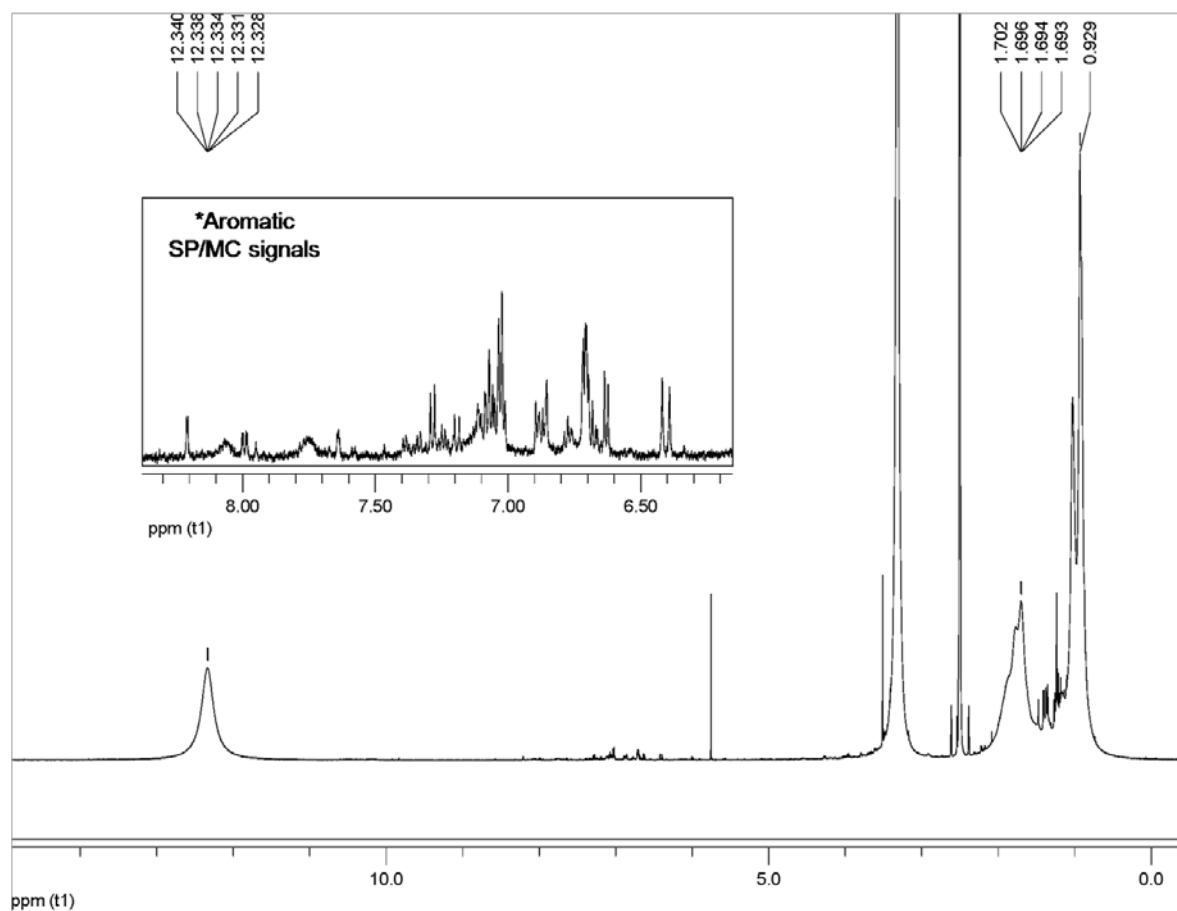


SI 3 – MALDI-TOF



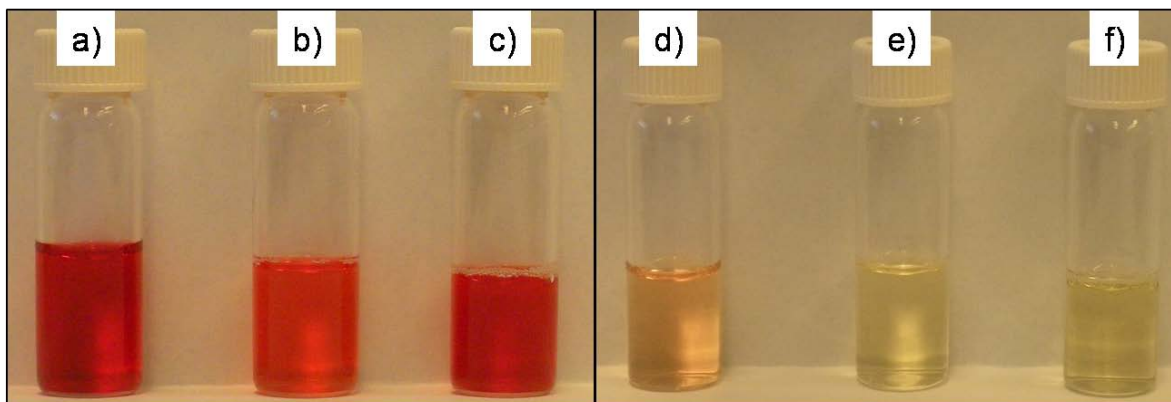
Mass spectrum for the mono- β CD-spiropyran, $m/z_{\text{calculated}}$ 1496.5 and m/z_{observed} 1497.4

SI 4 – Nuclear Magnetic Resonance



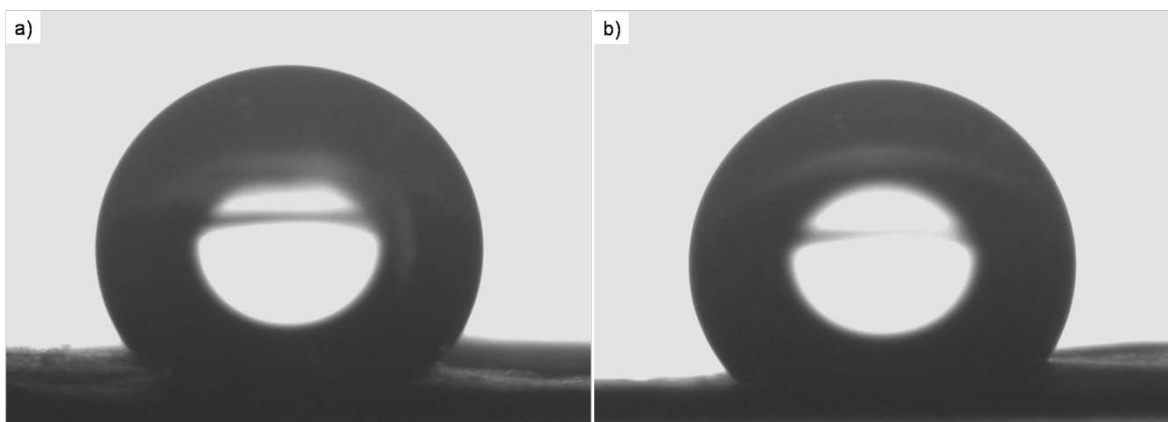
^1H NMR spectrum of PMAA_{SP} in DMSO_{*d*6} at 600 MHz at 30 °C.

SI 5 – Photochromic forms of β CD_{SP}, PMAA- β CD_{SP} and PMAA_{SP}



Merocyanine forms after UV irradiation of (a) β CD_{SP}, (b) PMAA- β CD_{SP} and (c) PMAA_{SP} and Spiro forms after visible light irradiation of (d) β CD_{SP}, (e) PMAA- β CD_{SP} and (f) PMAA_{SP}.

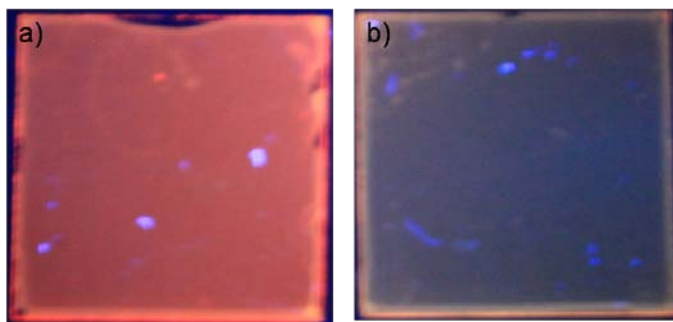
SI 6 – Water Contact Angle Measurements



Water contact angles for a) PMAA-βCD_{SP} after 24 hours visible light irradiation and b) PMAA-βCD_{MC} after 24 hours UV light irradiation.

SI 7 – Spin coating

Briefly, 0.3 mL of polymer solution was placed on a glass slide; a rotation velocity of 400 rpm for 5 seconds was used with a posterior rotation of 2300 rpm for 50 seconds. The glass slides were placed in oven at 170 °C for 12 hours to cross-link the polymer, after that, one was irradiated with UV while another one with visible light for 24 hours.



Spin coating films of PMAA- β CD_{SP} under UV light to demonstrate the fluorescence behavior of merocyanine incorporated in the polymer matrix with previous (a) UV light irradiation and (b) visible light irradiation.