

Supporting information

Interaction of 4-oxoalkane-1,1,2,2-tetracarbonitriles with Lawesson's reagent – a new approach to the synthesis of 2,2'-disulfanediylbis(1H-pyrroles). The synthesis of photochromic diarylethene with disulfide bridge

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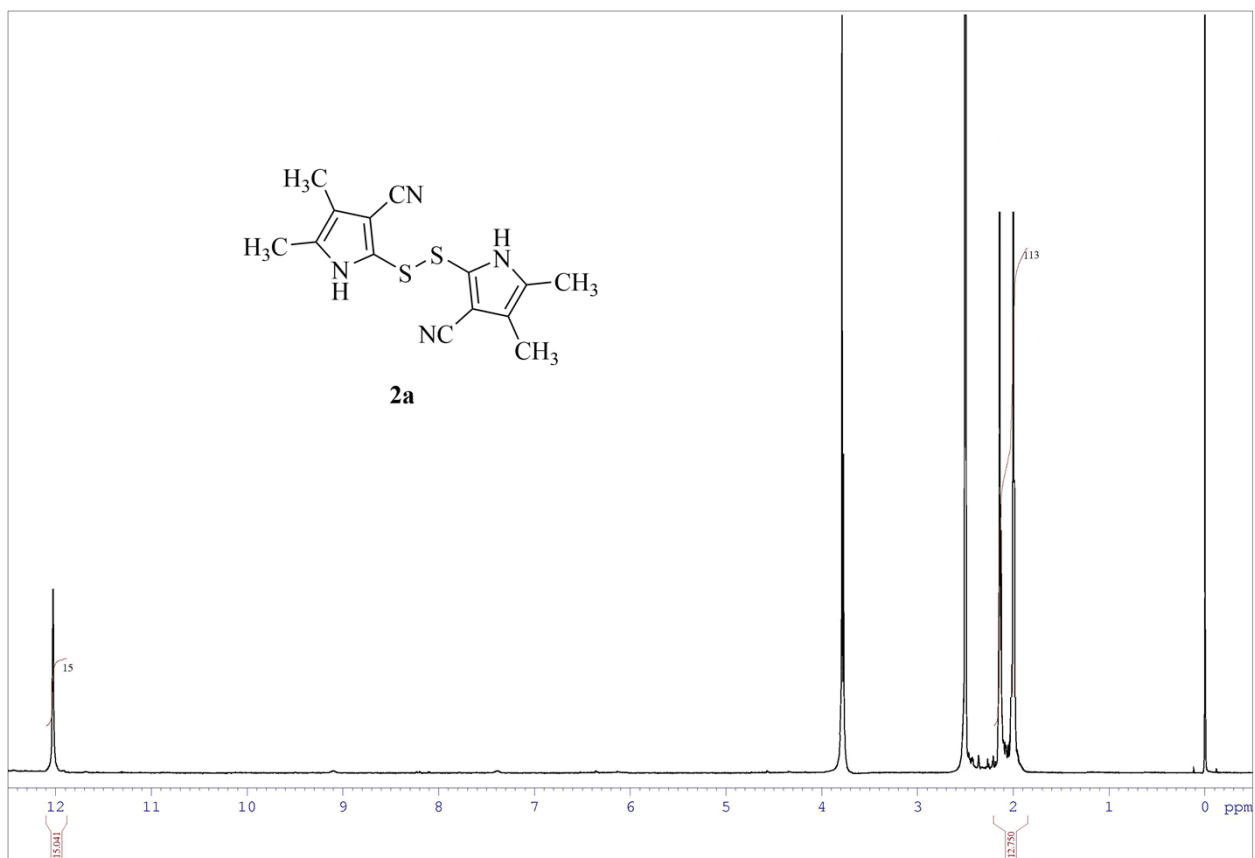


Fig. 1. ¹H-NMR-spectrum of **2a** (500 MHz, DMSO-d₆, 299K)

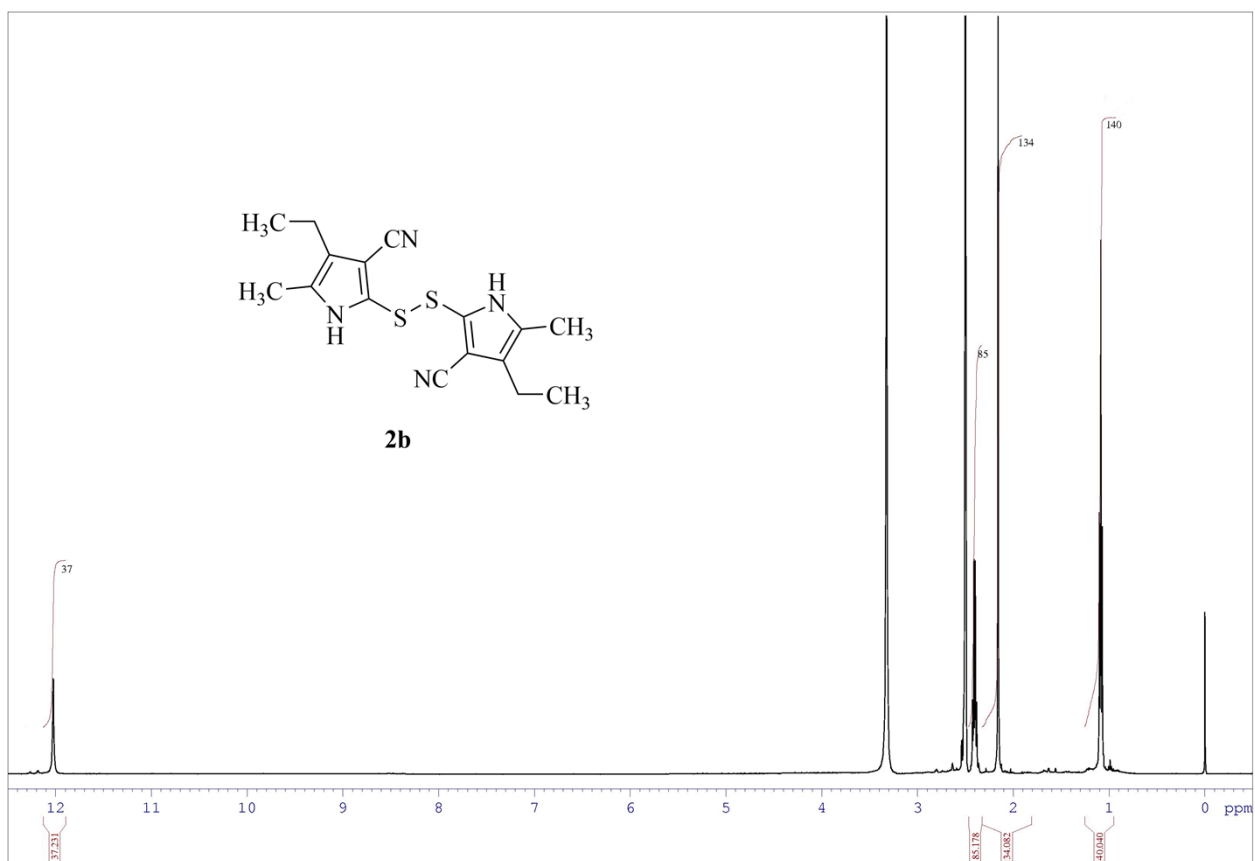


Fig. 2. ¹H-NMR-spectrum of **2b** (500 MHz, DMSO-d₆, 299K)

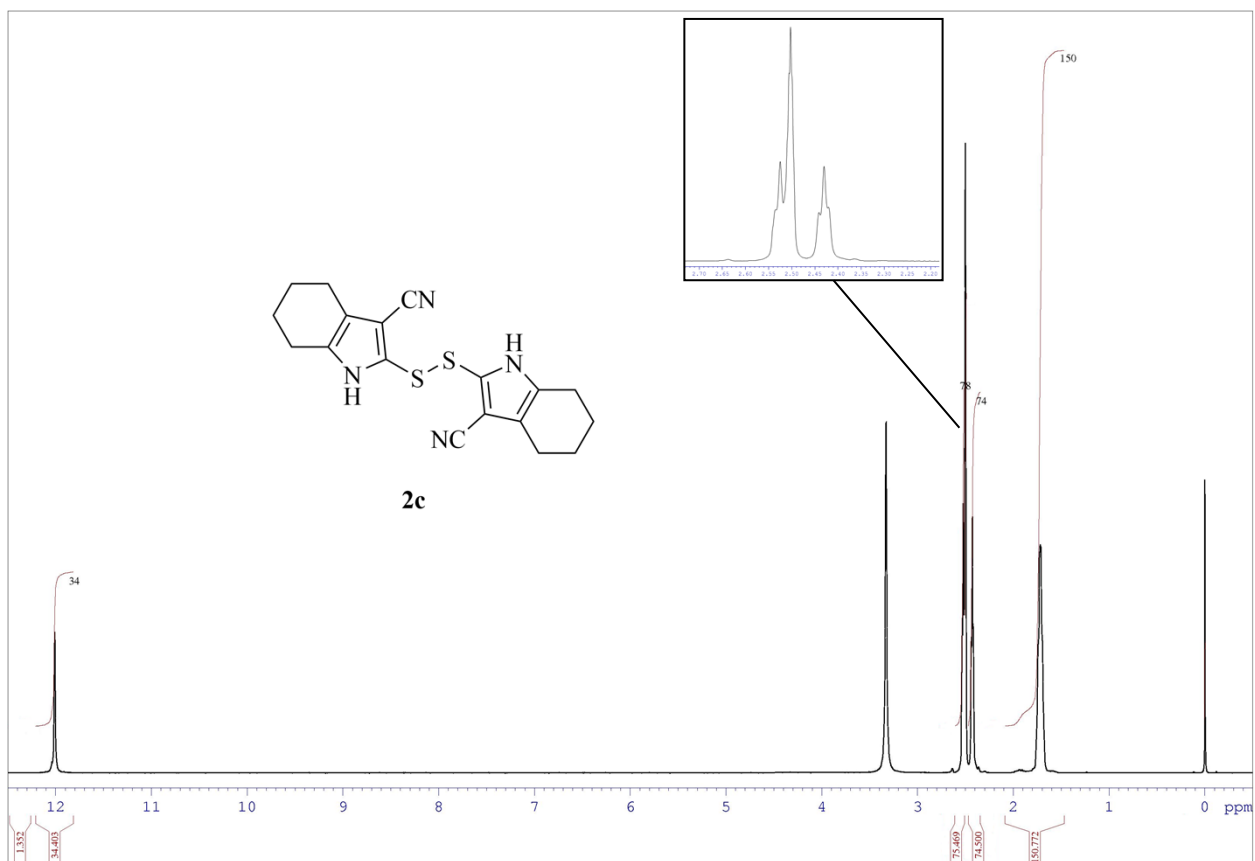


Fig. 3. ¹H-NMR-spectrum of **2c** (500 MHz, DMSO-d₆, 299K)

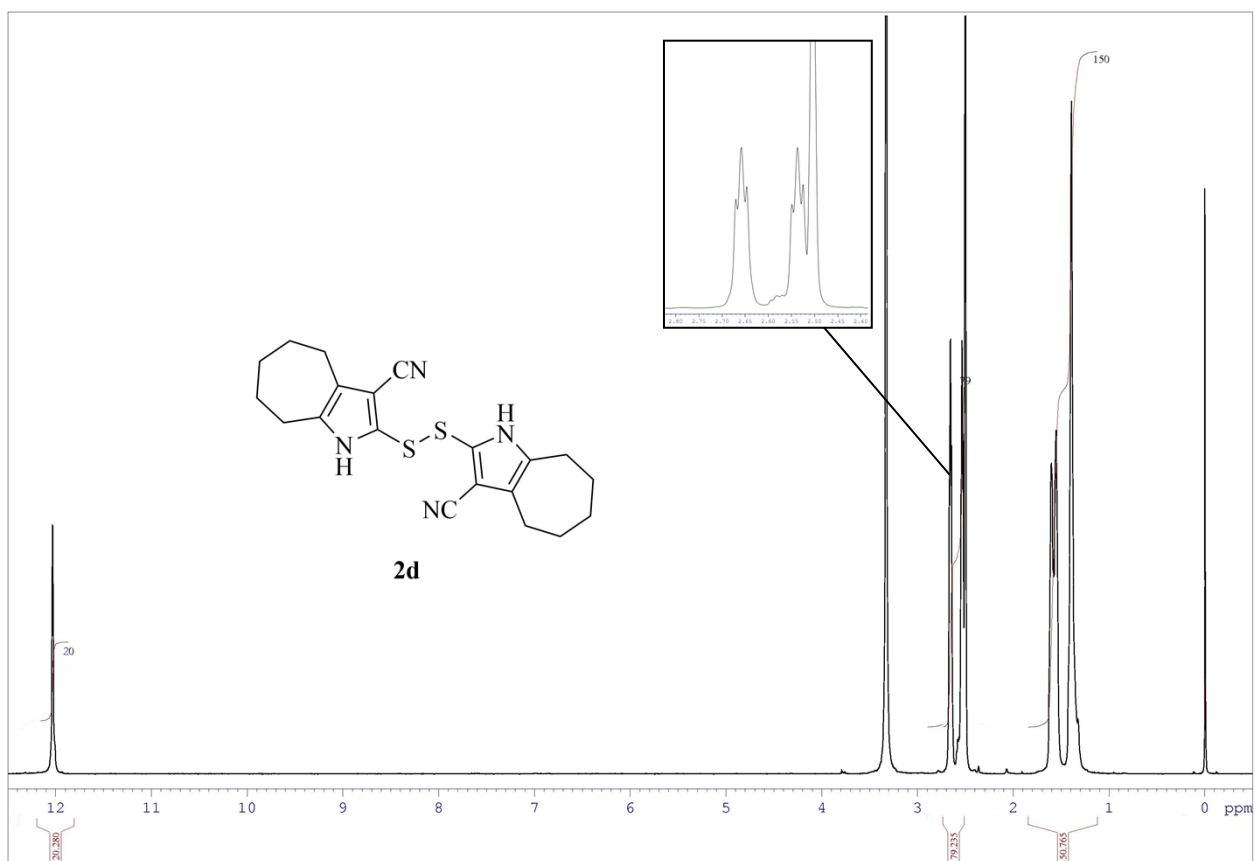


Fig. 4. ¹H-NMR-spectrum of **2d** (500 MHz, DMSO-d₆, 299K)

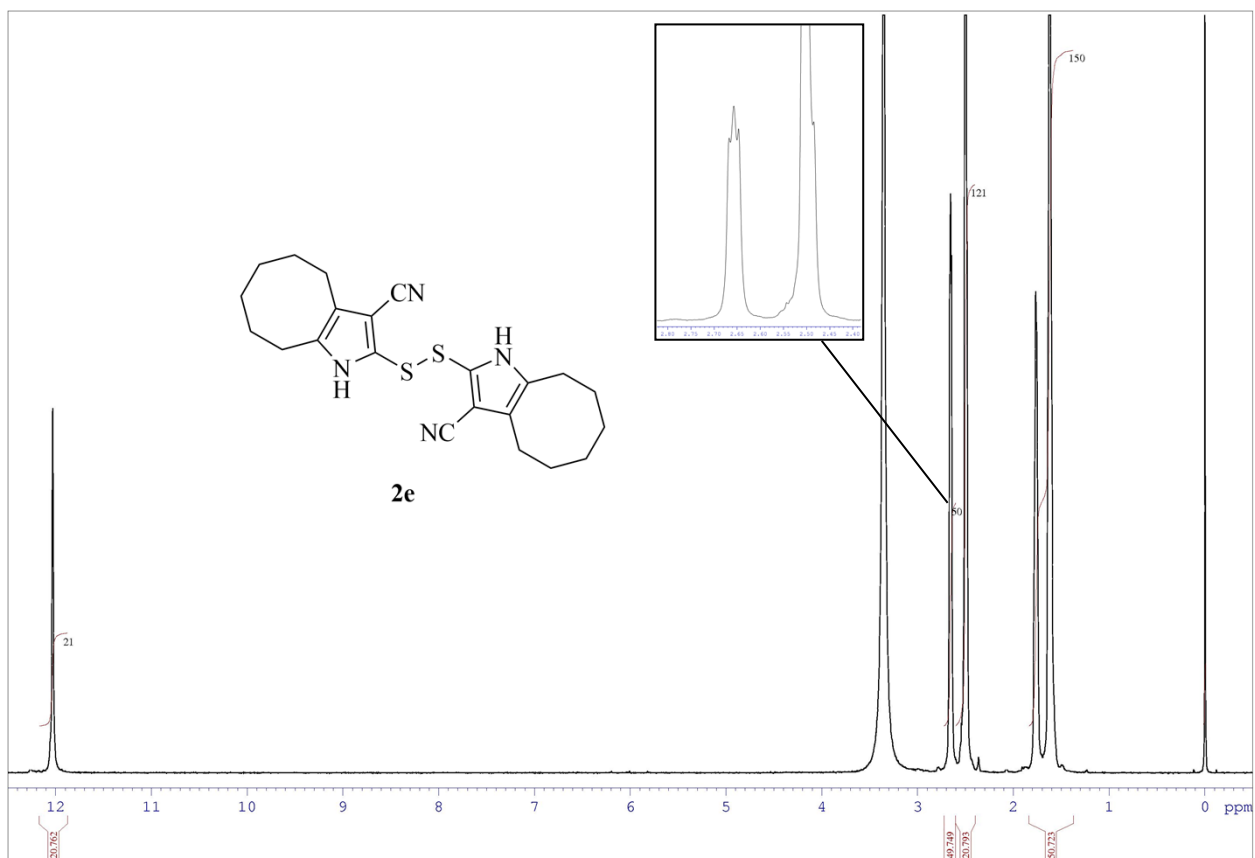


Fig. 5. ¹H-NMR-spectrum of **2e** (500 MHz, DMSO-d₆, 299K)

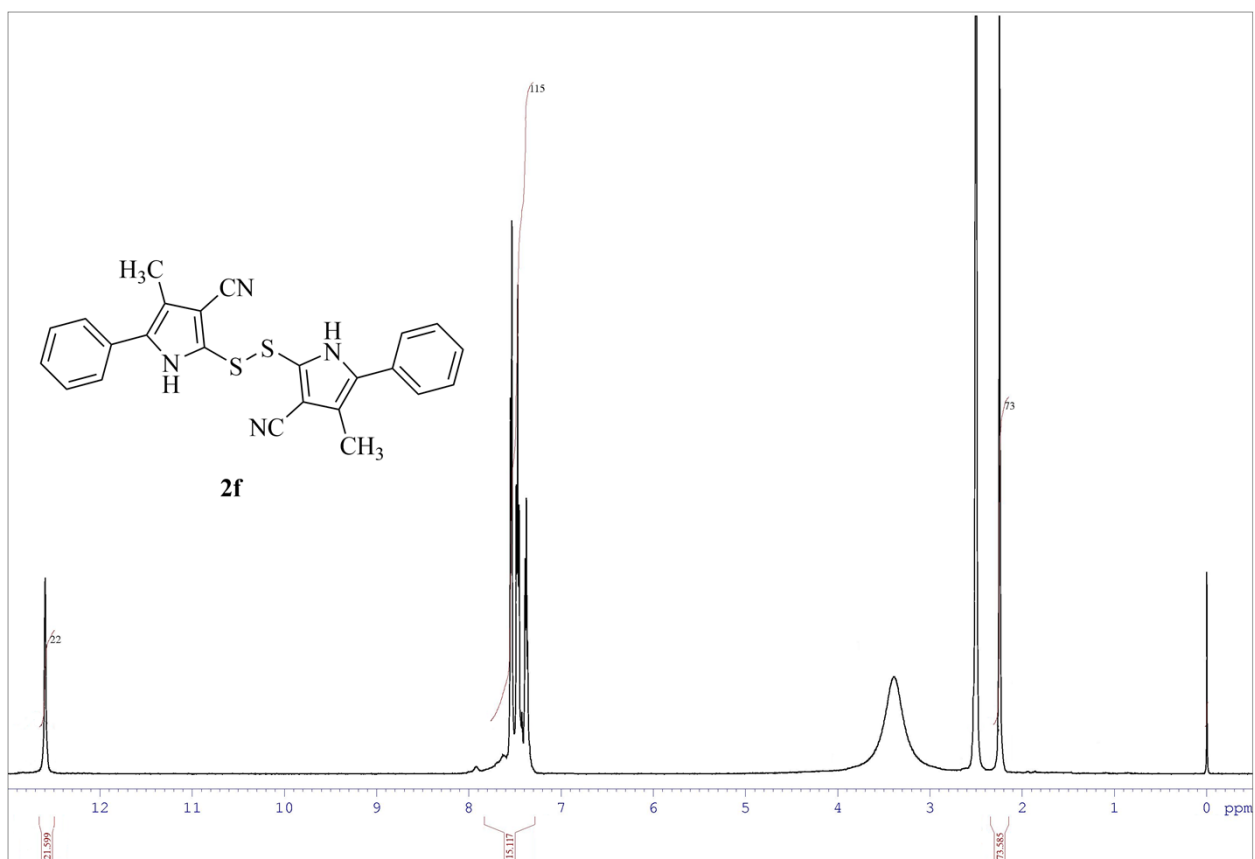


Fig. 6. ¹H-NMR-spectrum of **2f** (500 MHz, DMSO-d₆, 299K)

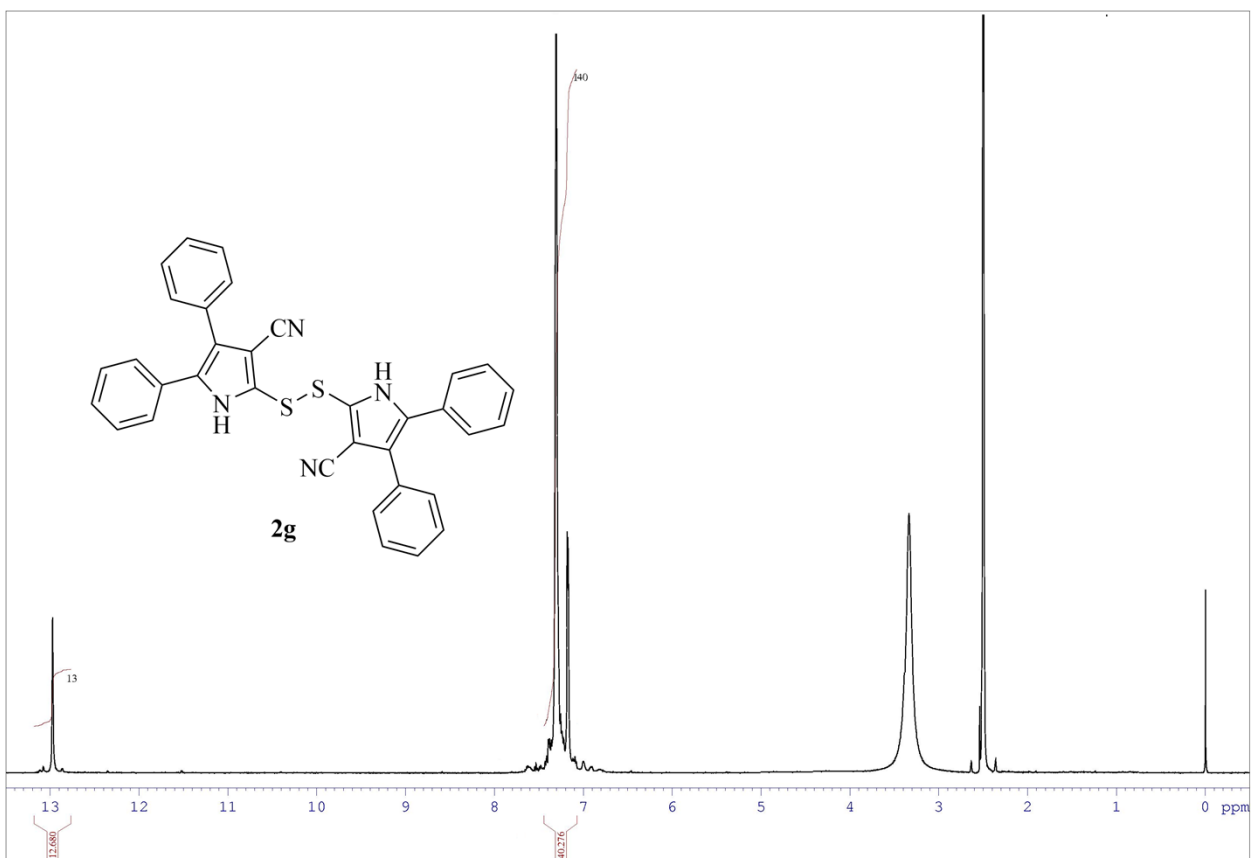


Fig. 7. ¹H-NMR-spectrum of **2g** (500 MHz, DMSO-d₆, 299K)

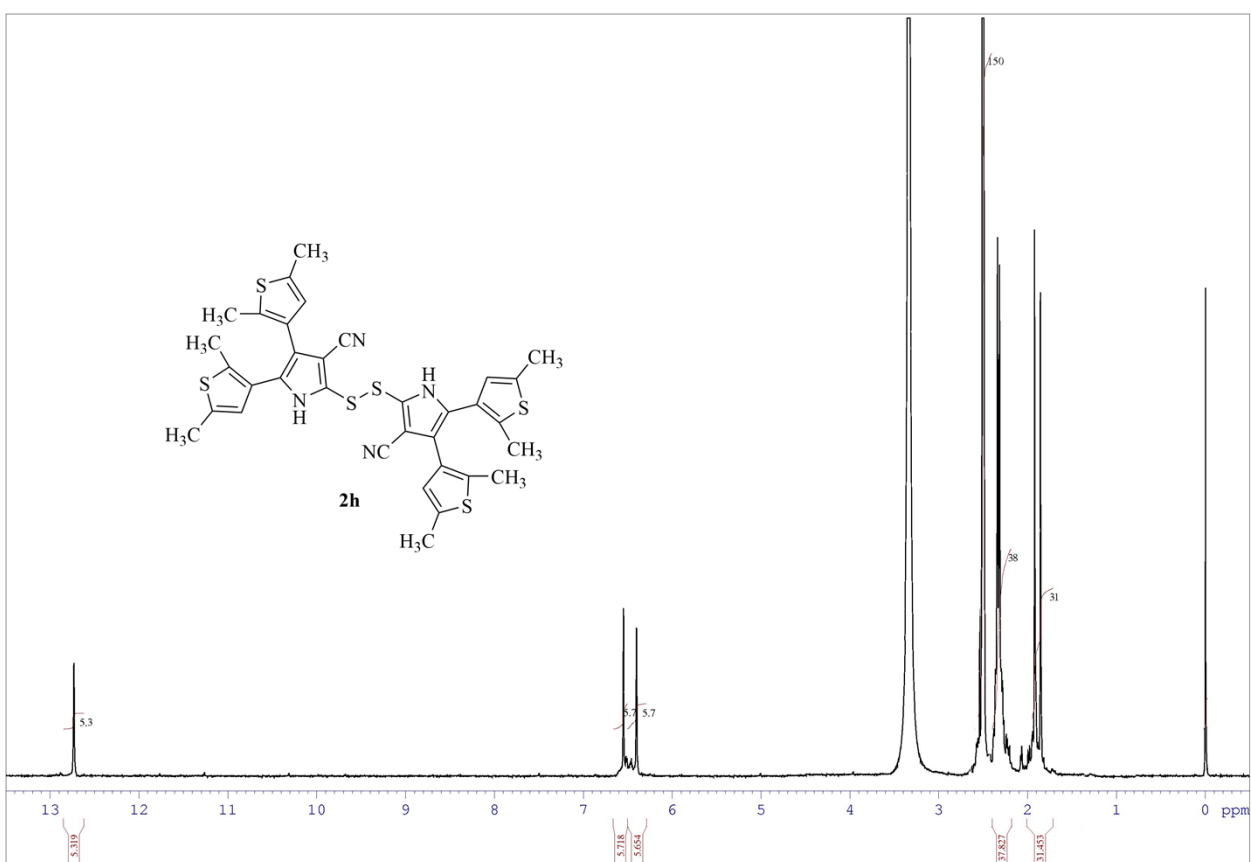


Fig. 8. ¹H-NMR-spectrum of **2h** (500 MHz, DMSO-d₆, 299K)

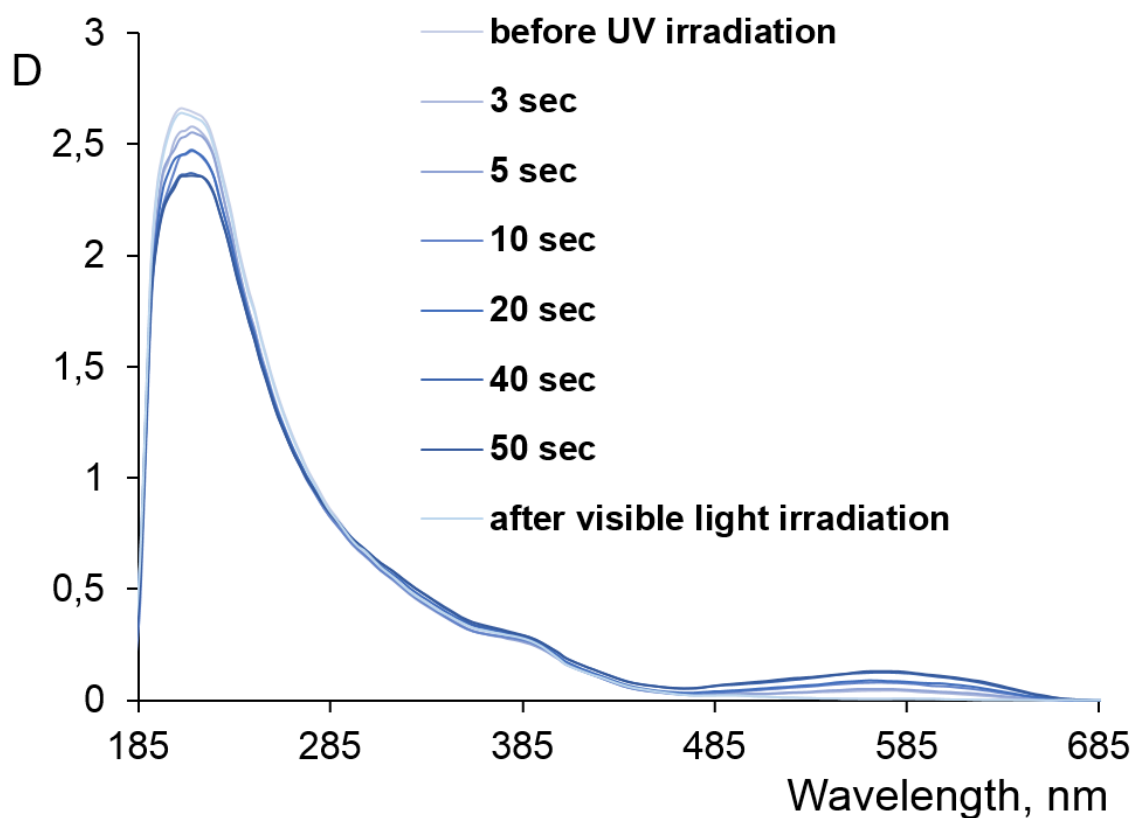


Fig. 9. UV-vis absorption spectra during the course of ring-closure of disulfide **2h** in ethanol ($C = 1 \times 10^{-4}$ M), induced by irradiation with UV light ($\lambda = 312$ nm) until reaching the photostationary state and subsequent photobleaching under visible light.

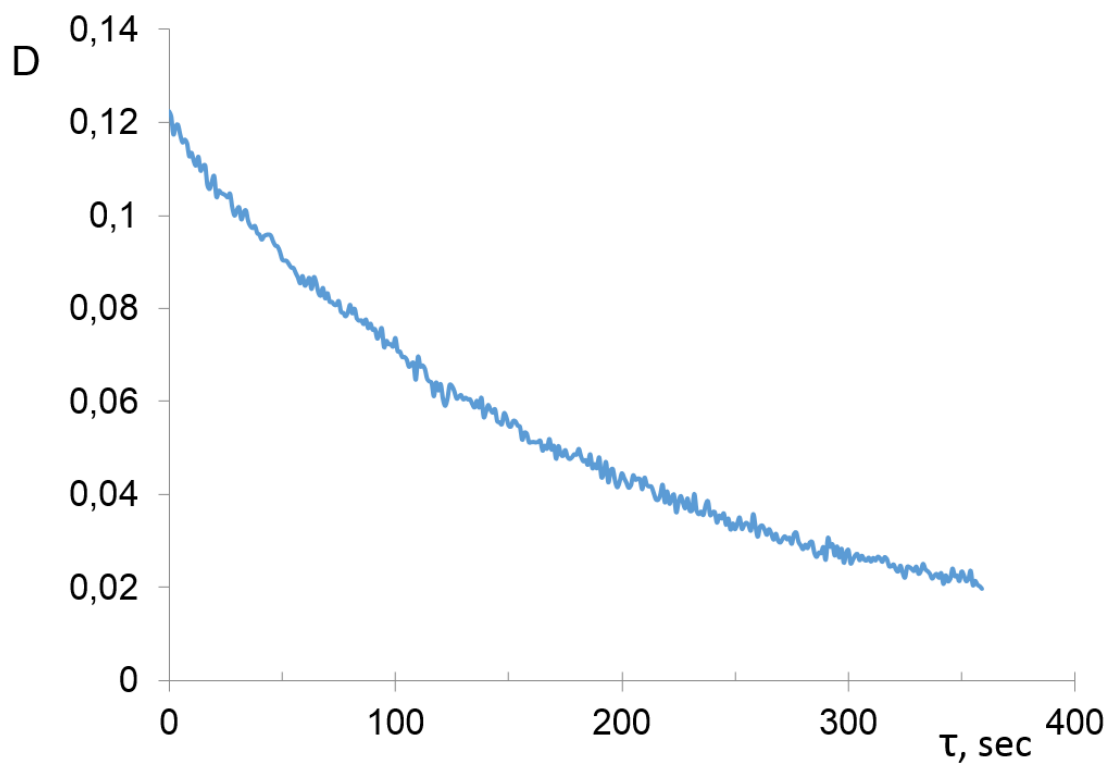


Fig. 10. Thermal relaxation of **2h** in the dark at 298 K registered at 570 nm after irradiation with UV 312 nm in ethanol ($C = 1 \times 10^{-4}$ M). Starting time $\tau=0$ corresponds to the end of UV irradiation.