## **Electronic supplementary information (ESI)**

## OMe OMe 0 Me Ме н Me $O_2N$ FETXUY н н Catemer N-H-N CEXYIO CEXYAG COFFUY No coord. Catemer N-H-N OH N-H···O=C CO<sub>2</sub>t-Bu H Ph Н N ЮĤ $\cap$ ĆO₂t-Bu N N 1 N N H<sub>2</sub>NHN н Н NO<sub>2</sub> н н ĊF<sub>3</sub> FULKUS Dimer N–H…N **FUWPAO** GEFBUO No coord. FUQYIA Dimer N-H-N Dimer N-H---N NH<sub>2</sub> $\cap$ CO<sub>2</sub>H N N Ν 1 1 Н н н Н ÓMe INDAZL JOKVUB LABNIL N-H-O=C IHESIX Catemer N-H---N N-H···O=C O-H...N Trimer N-H...N OEt $CF_3$ F Me CF<sub>3</sub> N N 1 N 1 F ́\_Ņ́\_H н н 0 0<sup>2</sup>S н н LIDFUA Dimer LIDGAH LIDGEL LATNAW Catemer N-H---N N-H...N Catemer N-H-N N-H···O=S ÓMe CF<sub>3</sub> CO<sub>2</sub>Me $NH_2$ 0 Me N 1 H<sub>2</sub>O н ĊΝ н н Н ODOTUX N-H--NC SUHVUM N-H···O=C **RECYIH N-**NEFCOR Trimer N–H…N H---OH<sub>2</sub>

## 1H-indazoles (framed those cases where there is only N–H…N HBs)



Figs. 1S to 3S:



**Fig. 1S** Experimental and scaled predicted IR spectra of INDAZL: a) Experimental IR spectrum in CCl4 solution; b) Experimental IR spectrum in film conditions; c) Experimental IR spectrum from ATR technique; Exp. Cond.: 200 scans,  $1 \text{ cm}^{-1}$  of resolution; d) Scaled predicted IR spectra for the INDAZL monomer (freq. scaling factor of 0.953 in black, SQMFF methodology in green), for the dimer (freq. scaling factor of 0.953 in red) and for the trimer (freq. scaling factor of 0.953 in blue); (Lorentzian function, Pitch =  $1 \text{ cm}^{-1}$ , FWHM =  $8 \text{ cm}^{-1}$ ).



**Fig. 2S** Experimental and scaled predicted Raman spectra of INDAZL: a) Experimental Raman spectrum of the solid (Renishaw microscope, 785 nm); a) Experimental Raman spectrum of the solid (FT-Raman Bruker, 1064 nm); Exp. Cond.: 200 scans, 1 cm<sup>-1</sup> of resolution; c) Scaled predicted IR spectra for the INDAZL monomer (freq. scaling factor of 0.953 in black, SQMFF methodology in green), for the dimer (freq. scaling factor of 0.953 in red) and for the trimer (freq. scaling factor of 0.953 in blue); (Lorentzian function, Pitch = 1 cm<sup>-1</sup>, FWHM = 8 cm<sup>-1</sup>).



**Fig. 3S** Experimental and theoretical VCD spectra of INDAZL in the 3800 cm<sup>-1</sup>- 3000 cm<sup>-1</sup> spectral region: a) Experimental IR spectrum in fluorolube mull, 4000 scans, 8 cm<sup>-1</sup> of resolution. b) Experimental VCD spectrum in fluorolube mull, 4000 scans, 8 cm<sup>-1</sup> of resolution. c) and d) Predicted scaled VCD spectra for the INDAZL dimer (c) and trimer (d) (solid line for *S* configuration - *P* helix model, dotted line for *R* configuration - *M* helix model); Lorentzian function, Pitch = 1 cm<sup>-1</sup>, FWHM = 8 cm<sup>-1</sup>.