

## Electronic Supplementary Information

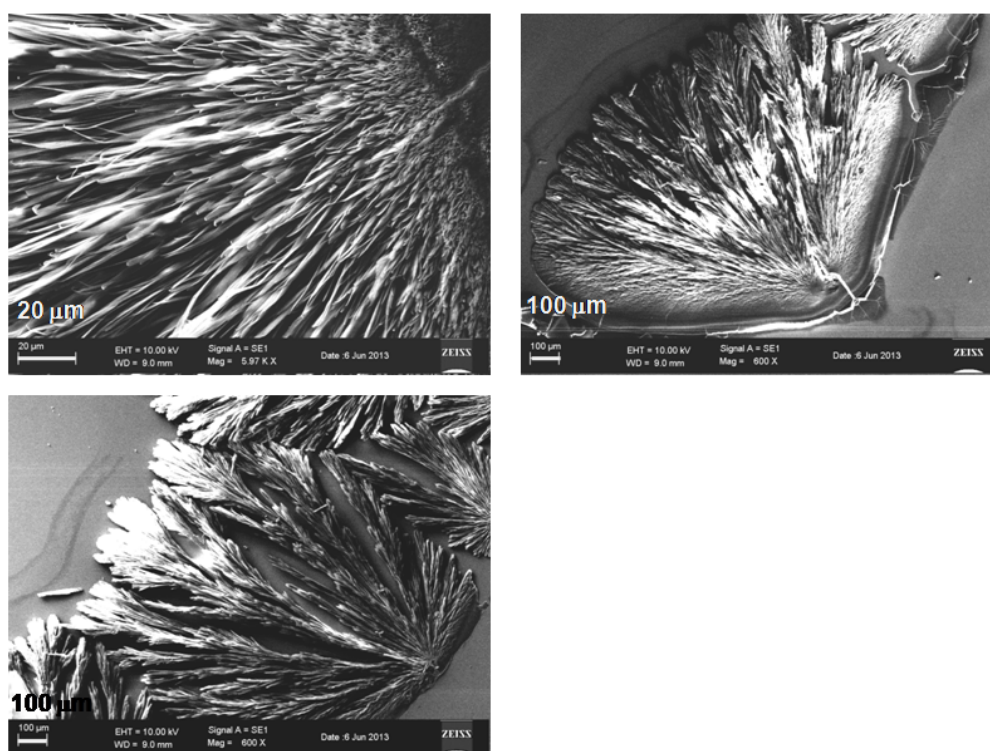
### **1,1,1,3,3,3-hexafluoro-2-propanol and 2,2,2-Trifluoroethanol solvents induce self-assembly with different surface morphology in an aromatic dipeptide**

Samala Murali Mohan Reddy,<sup>a,b</sup> Ganesh Shanmugam,<sup>\*,a,b</sup> Asit Baran Mandal<sup>c</sup>

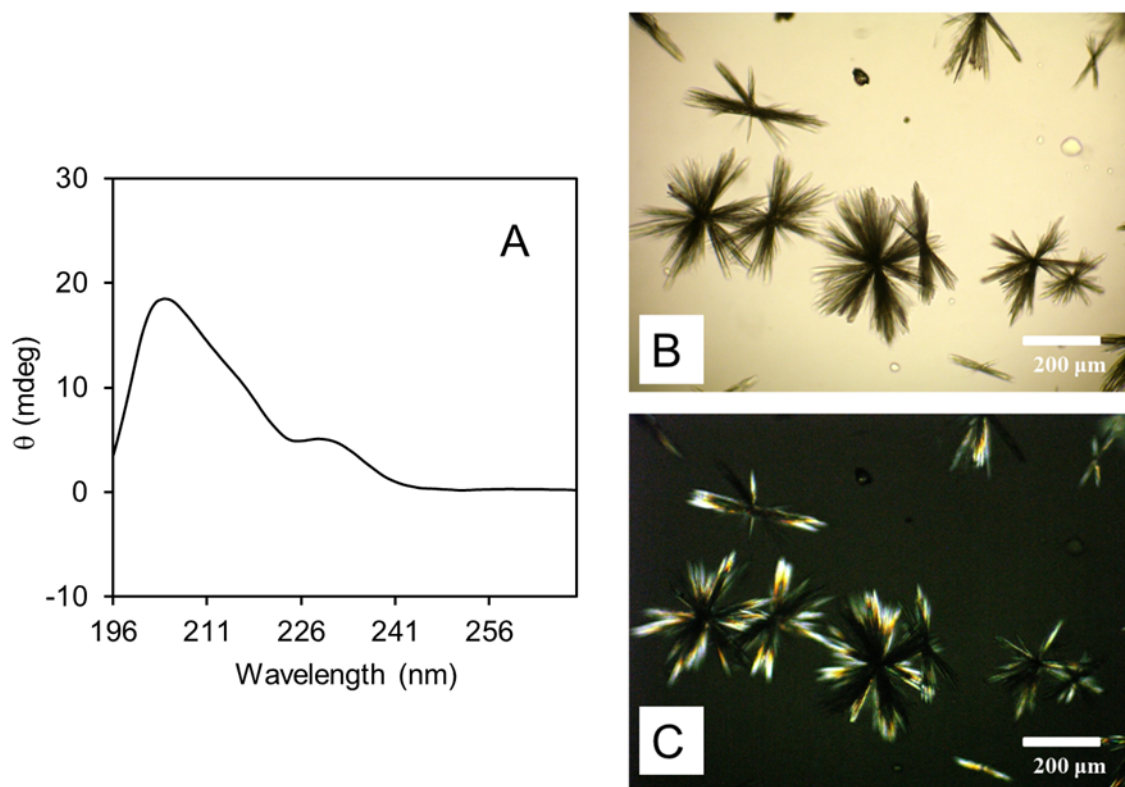
<sup>a</sup>Bioorganic Laboratory, CSIR-Central Leather Research Institute, Adyar, Chennai-600020, India

<sup>b</sup>Academy of Scientific and Innovative Research (AcSIR), Council of Scientific and Industrial Research (CSIR), New Delhi, India

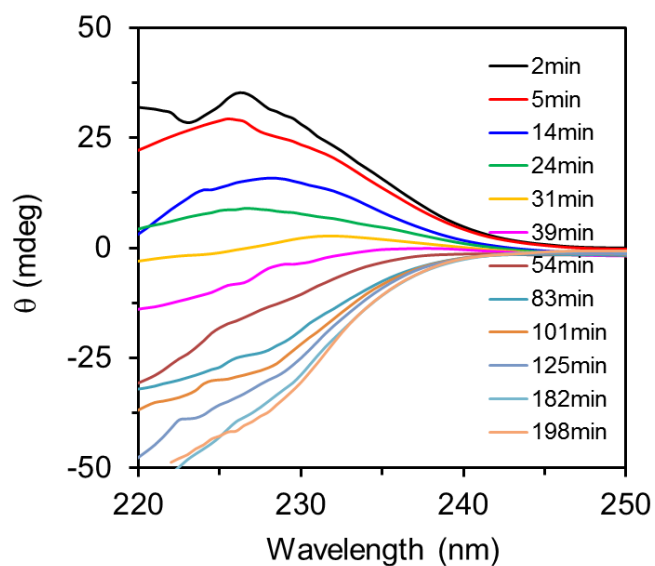
<sup>c</sup>Chemical Laboratory, CSIR-Central Leather Research Institute, Adyar, Chennai-600020, India



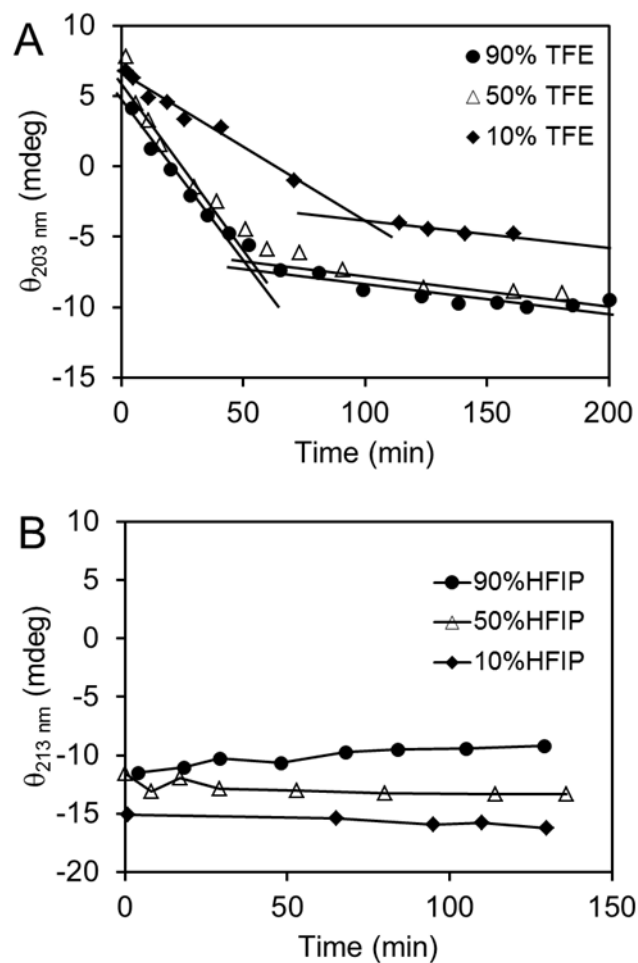
**Figure S1** SEM images of self-assembled structures obtained from HFIP solution of YF dipeptide.



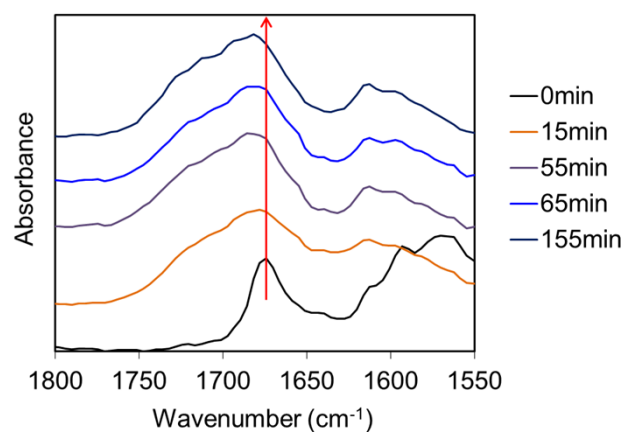
**Figure S2** CD of YF in methanol (0.1 mg/ml) (A) and the optical images of self-assembled structure, derived from methanol solution of YF (1 mg/ml), under normal (B) and polarization mode (C). Note that the relative intensity between 205 and 232 nm is different when compared to the CD spectrum of YF in HFIP.



**Figure S3** Time dependent CD spectra of YF in 10%HFIP/90%TFE. The concentration of YF was 1 mg/ml. The CD spectra were not measured below 220 nm due to high absorbance of YF.



**Figure S4** Change in ellipticity as a function of time for YF solutions obtained upon dilution of YF stock in HFIP with TFE at different concentrations (90%HFIP/10%TFE, 50%HFIP/50%TFE, and 10%HFIP/90%TFE, v/v) and vice versa (90%TFE/10%HFIP, 50%TFE/50%HFIP, and 10%TFE/90%HFIP, v/v). For comparison, the data from 10%HFIP/90%TFE and 10%TFE/90%HFIP solvent mixture is reproduced.



**Figure S5** Representative time-dependent FTIR spectra (carbonyl region) of YF structure derived from 10%HFIP/90%TFE (1 mg/ml). With increasing time, the amide I frequency is shifting from  $1670\text{ cm}^{-1}$  to  $1678\text{ cm}^{-1}$  accompanied by broadening of the band. The former and later spectra is similar the spectra of YF structure derived from neat HFIP and TFE solution, respectively, indicating the conformational changes that lead to different self-assembled structure.