

Electronic Supporting Information

Water inversed helicity of nanostructures from ionic self-assembly of chiral gelator and achiral component

Changxia Liu,^[a] Dong Yang,^[b] Li Zhang,^{[b]*} Minghua Liu^{[b]*}

[a] College of Chemistry and Chemical Engineering, Cangzhou Normal University, Cangzhou, 061001, P.R. China

[b] Beijing National Laboratory for Molecular Science, CAS Key Laboratory of Colloid, Interface and Chemical Thermodynamics, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, P. R. China.

Corresponding Author: E-mail: liumh@iccas.ac.cn, zhangli@iccas.ac.cn,

Tel: 86-10-82615803.

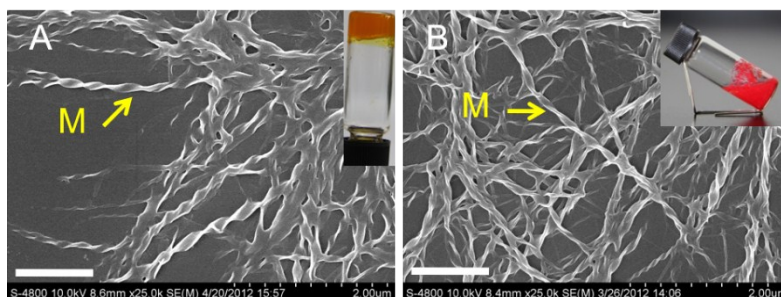


Fig. S1 SEM images of ISA of PULG and anionic dyes in ethanol PULG/BY(A); PULG/CR(B)
Scale bar: 1 μ m

The uniform left handed helices were observed by scanning electron microscopy (SEM) in ethanol, regardless of gel or precipitate for the ISA of PULG and anionic dyes (as shown in Fig. S1).

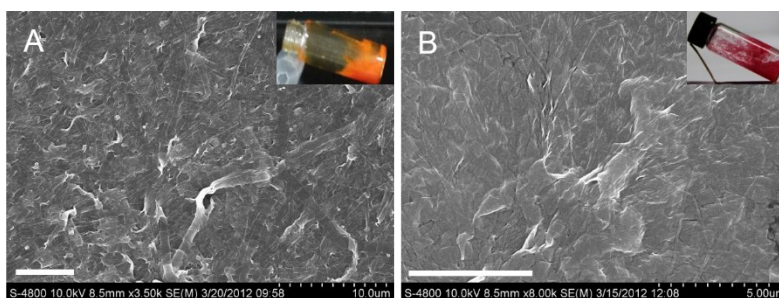


Fig. S2 SEM images of ISA of PULG/BY (A) and PULG/CR (B) in H₂O/ethanol (50% H₂O). Scale bar: 5 μm

If water was increased to above 50%, the gel was destroyed and the chiral structures disappeared (Fig. S2).

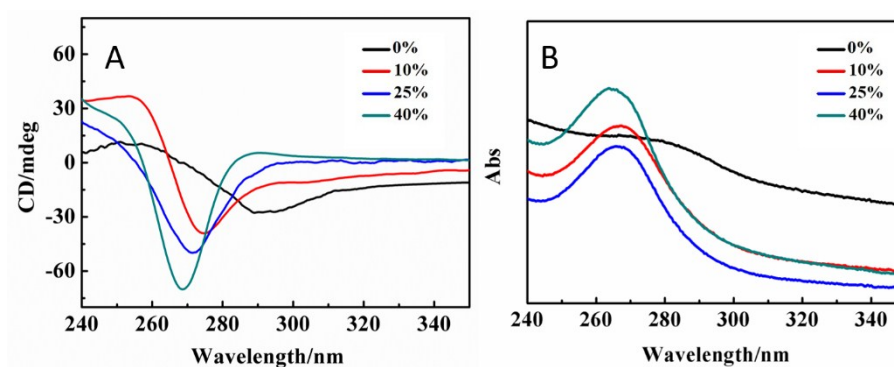


Fig. S3 CD spectra of self-assembly of PULG molecules in different ratio H₂O/ethanol mixture solvents (v% H₂O)

The PULG self-assembly showed a negative Cotton effect centred indicating that the chirality of glutamine moiety was transferred to pyridium chromophore.

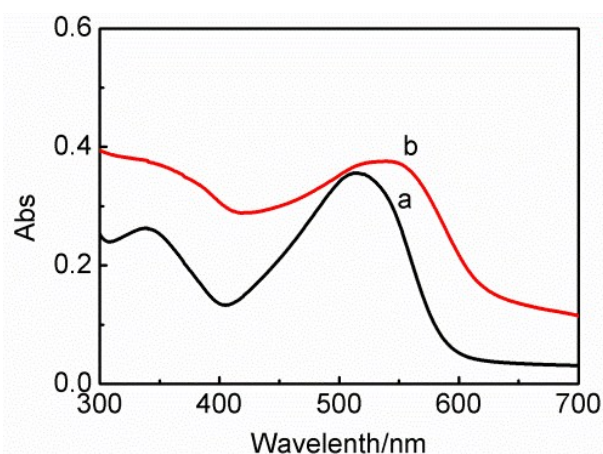


Fig. S4 UV spectra of ISA of PULG/CR in H₂O/ethanol (v% H₂O), 0% (a); 40% (b)

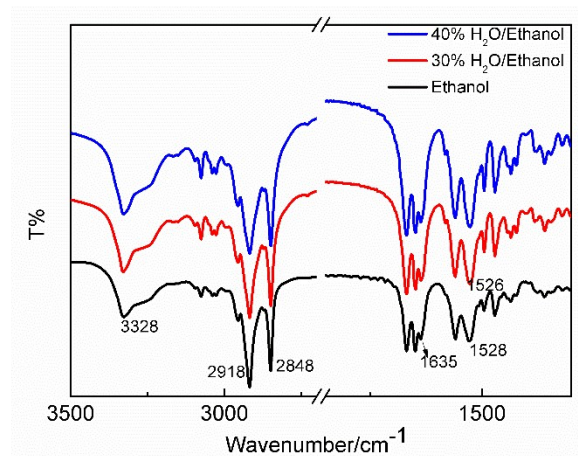


Fig. S5 FT-IR spectra of PULG in H₂O/Ethanol (v% H₂O), 0%, 30% and 40%