

基于两亲性喹喔啉的超分子凝胶：手性信号反转以及多重响应手性光学开关

汪含笑¹, 徐俐菲^{1,2}, 刘鸣华^{1,2,*}

¹ 中国科学院化学研究所, 胶体界面与化学热力学实验室, 北京 100190

² 中国科学院大学, 北京 100049

Supramolecular Gel Based on Amphiphilic Quinoxaline: Chirality Inversion and Chiroptical Switch with Multiple Stimuli-Responsiveness

Hanxiao Wang¹, Lifei Xu^{1,2}, Minghua Liu^{1,2,*}

¹ Key Laboratory of Colloid, Interface and Chemical Thermodynamics, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, P. R. China.

² University of Chinese Academy of Sciences, Beijing 100049, P. R. China.

*Corresponding author. Email: liumh@iccas.ac.cn.

表 1 凝胶因子 SQLG 的凝胶化实验

Table 1 Gelation property of SQLG in various organic solvents.

Solvents	Phase
Cyclohexane	Transparent gel
Toluene	Transparent gel
Dichloromethane	Turbid gel
Tetrahydrofuran	Suspension
Ethyl Acetate	Suspension
Acetone	Suspension
Ethanol	Turbid gel
DMF	Transparent gel
DMSO	Transparent gel

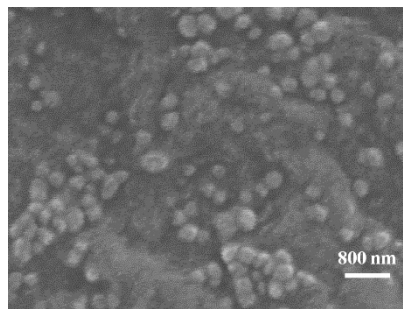


图 1 SQLG 的甲苯凝胶酸化后所得组装体的 SEM 图像

Fig. 1 SEM images of the acidified toluene gel of SQLG.

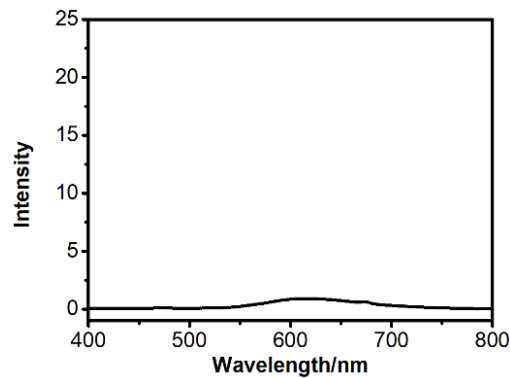


图 2 SQLG 的甲苯凝胶酸化后所得组装体的荧光光谱

Fig. 2 Fluorescence spectra of acidified toluene gel of SQLG.

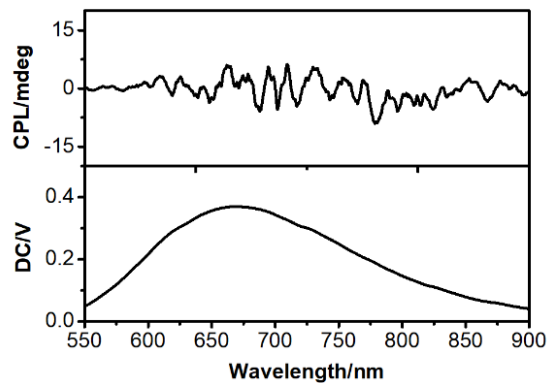


图 3 SQLG 的甲苯凝胶酸化后所得组装体的 CPL 光谱

Fig. 3 CPL spectra of acidified toluene gel of SQLG.

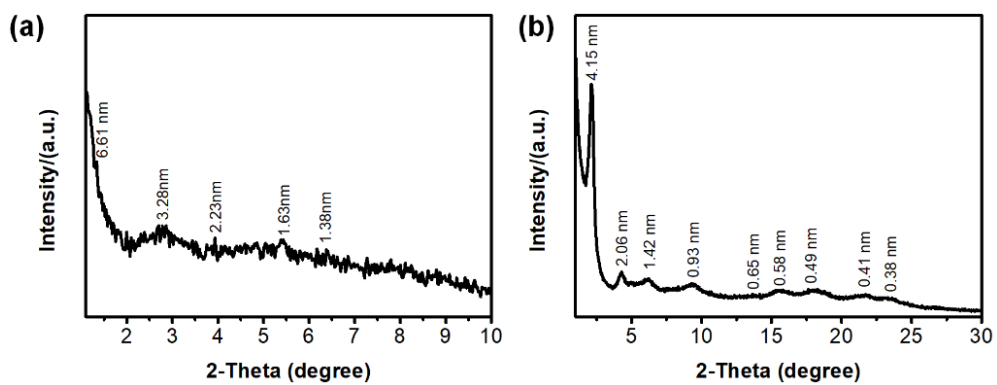


图4 SQLG 的甲苯(a)和 DMF(b)凝胶所得干凝胶的 XRD 光谱

Fig. 4 XRD patterns of toluene gel (a) and DMF (b) gel of SQLG.

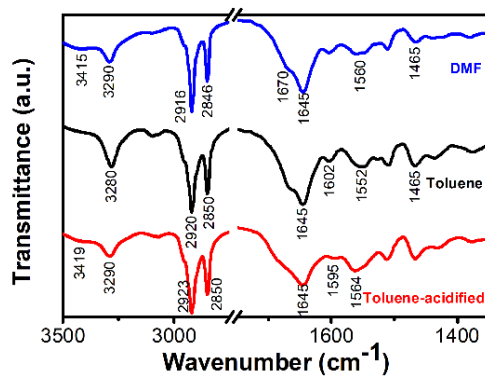


图5 SQLG 的甲苯(a)和 DMF(b)凝胶所得干凝胶以及甲苯凝胶酸化后所得组装体(c)的红外光谱

Fig. 5 FT-IR spectra of toluene gel (a), DMF gel (b) and acidified toluene gel (c) of SQLG.