Supplementary Material (ESI) for New Journal of Chemistry

Electric Supplementary Information

Cationic surfactant–triggered formation of supramolecular hydrogel by negatively charged L–valine derivative

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Table S1. Hydrogelation Properties of S1/**1** at 25°C.

S/1	S1	S2	S3
0	—	—	—
0.2	**14**	**12**	**4**
0.4	**2**	**4**	**4**
0.6	**8**	**10**	**6**
0.8	P	**4**	**10**
1.0	P	P	**10**
1.2	**4**	**10**	**10**
1.4	**4**	**10**	**10**
1.6	**4**	**10**	**10**
1.8	**4**	**10**	—
2.0	**8**	**10**	—

Values denote minimum gel concentration necessary for hydrogelation (g/L). P: Precipitation. —: No hydrogelation.

Table S1 lists the minimum gel concentration necessary for hydrogelation (MGC, g/L) of 1 in the absence and presence of surfactants. 1 forms a hydrogel below 10 g/L in the presence of a cationic surfactant; especially, S1/1 (0.4) can gel water at 2 g/L.

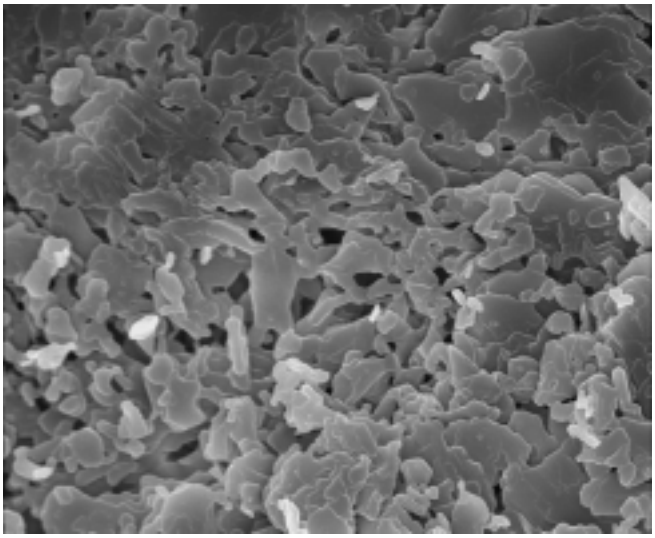

Figure 1S. FE–SEM image of the sample prepared from aqueous solution of DTMACl (32.0 mM)

Figure 1S shows the FE–SEM image of DTMACl in aqueous solution. Under the experimental conditions of hydrogelation, S1 did not form fibrous aggregates. Because **1** does not form a nanofiber in water, the presence of the cationic surfactants induce the formation of nanofibers and then creation of a three–dimensional network, leading to the formation of a hydrogel.