Electronic Supplementary Information

RSC Advances

Solvent-polarity-tuned nanostructures assembled from modified octadecylcarbamate with anthracen moiety

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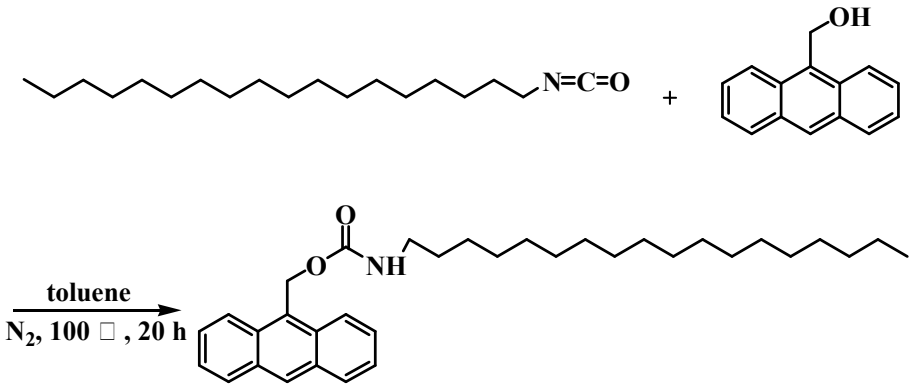
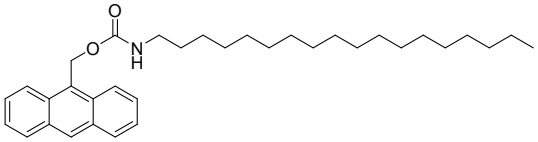
Synthesis of A-9-YMOC



Scheme S1 Chemical structure and synthesis of A-9-YMOC

Characterization of A-9-YMOC



Anthracen-9-ylmethyl octadecylcarbamate

^{1}H NMR (400 MHz, $CDCl_3$): δ(ppm) 8.51 (s, 1H), 8.41 (d, *J* = 8.9 Hz, 2H), 8.04 (d, *J* = 8.4 Hz, 2H), 7.64 – 7.55 (m, 2H), 7.55 – 7.47 (m, 2H), 6.16 (s, 2H), 4.67 (brs, 1H), 3.22 (dd, *J* = 13.1, 6.6 Hz, 2H), 1.49 (s, 2H), 1.30 – 1.21 (m, 30H), 0.89 (t, *J* = 6.8 Hz, 3H); ^{13}C NMR (101 MHz, $CDCl_3$) δ 156.9, 131.7, 131.3, 129.3, 129.2, 127.1, 126.8, 125.3, 124.4, 59.3, 41.4, 32.2, 30.2, 29.9, 29.9, 29.8, 29.8, 29.7, 29.6, 29.5, 26.9, 22.9, 14.3, 0.2; ESI-MS m/z: calcd 526.3656; found 526.3737 ($M + Na^+$).

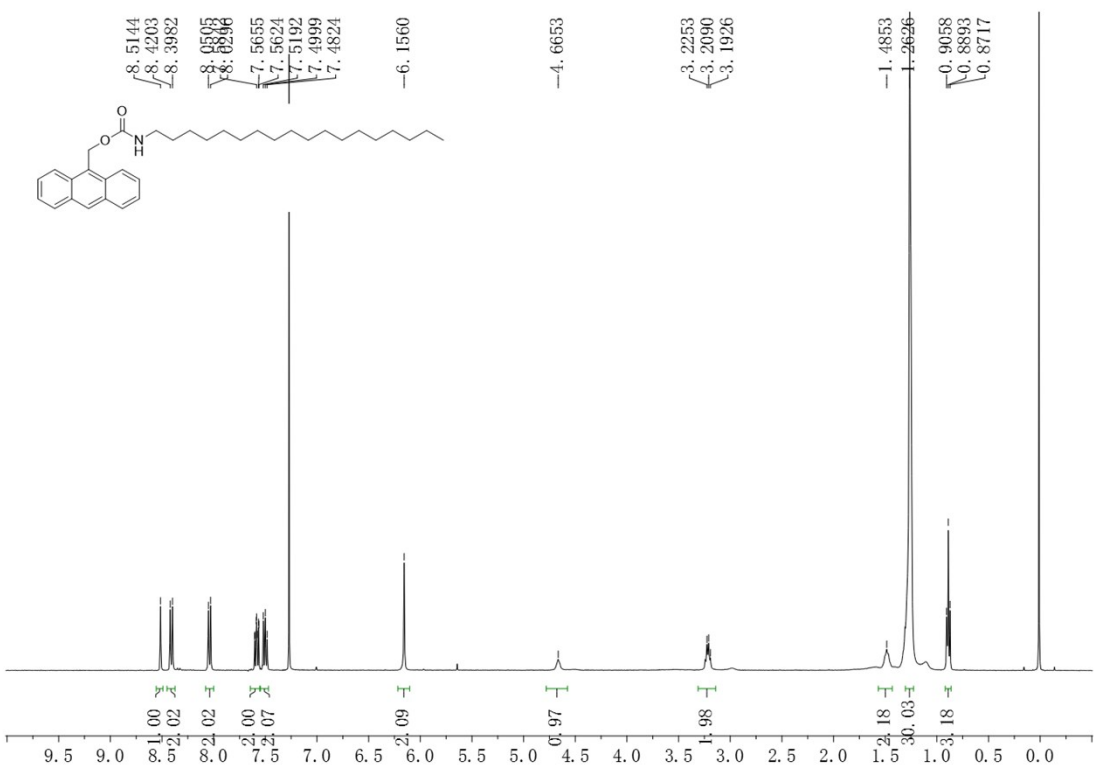


Figure S1 ^{1}H NMR of A-9-YMOC

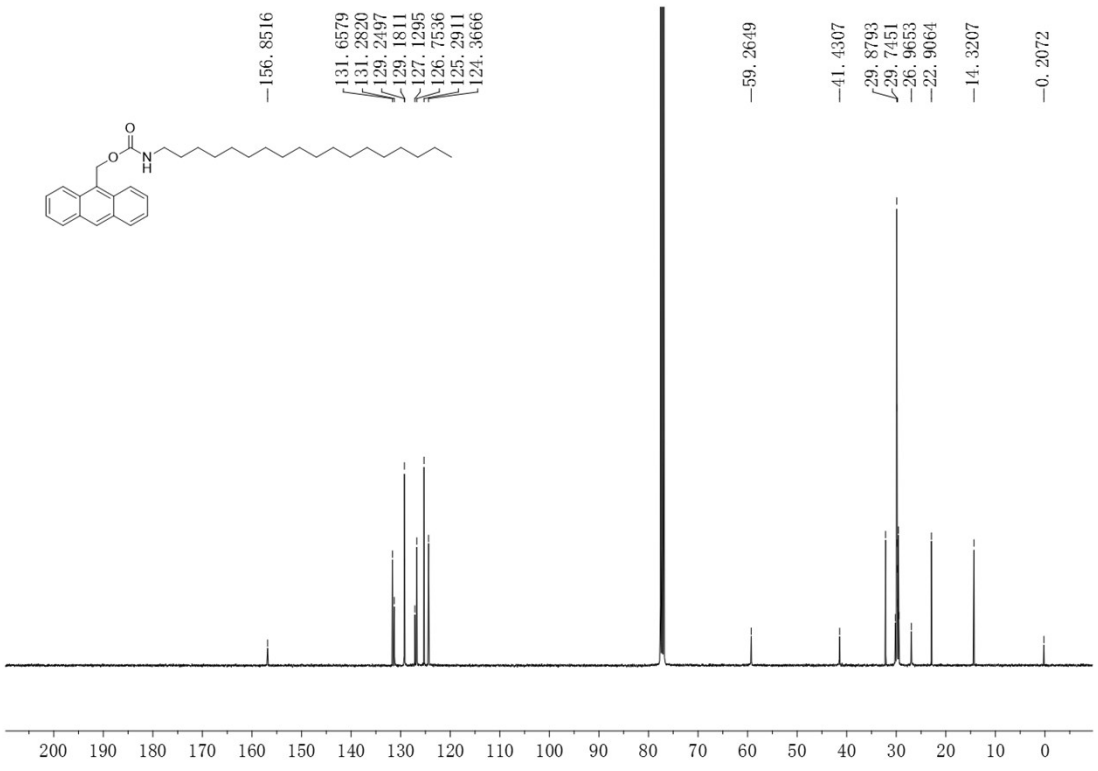


Figure S2 ^{13}C NMR of A-9-YMOC

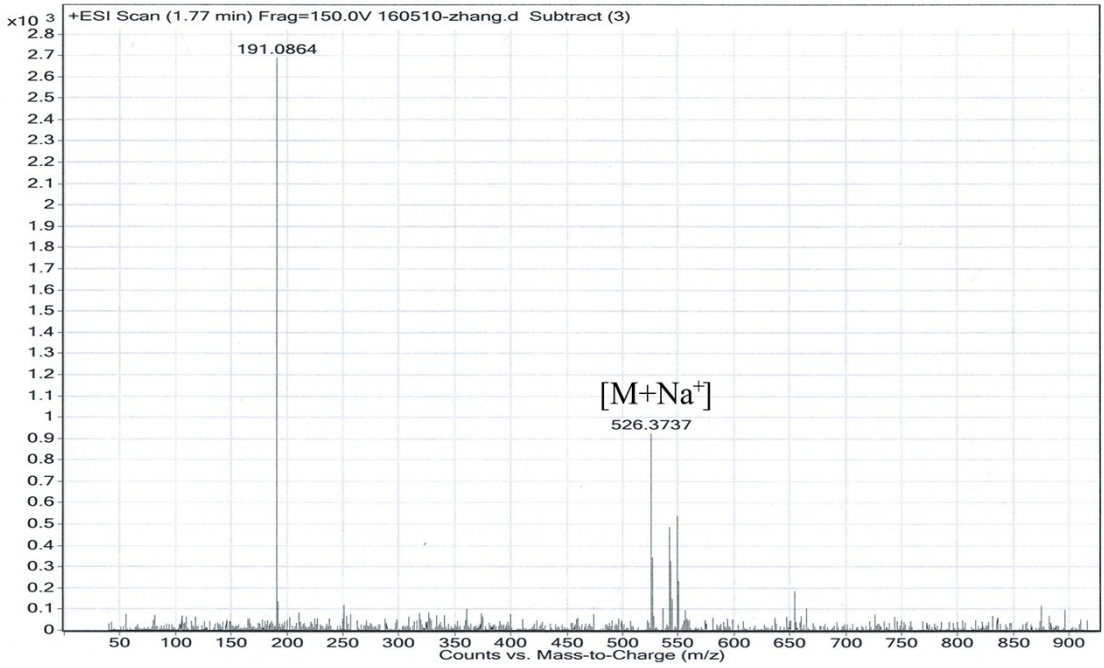


Figure S3 MS of A-9-YMOC

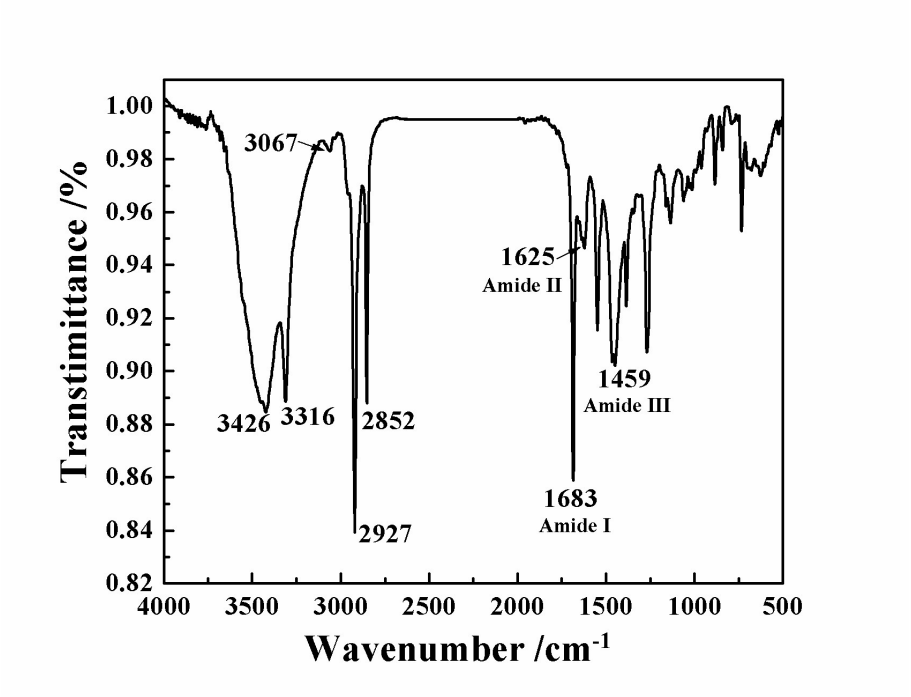


Figure S4 FT-IR of A-9-YMOC

Rheological characterization of A-9-YMOC gel

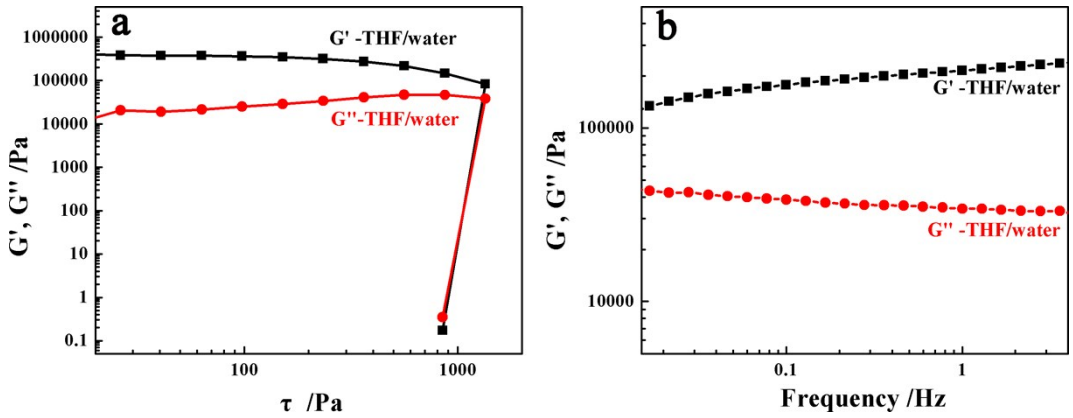


Figure S5 a) Dynamic oscillatory stress sweep and b) frequency sweep of A-9-YMOC gel in THF/water (2/8, v/v), c = 1 wt%.