Electronic Supplementary Material (ESI) for Soft Matter.

Supporting Information

Impact of *"half-crown/two carbonyl"* - Ca^{2+} metal ion interactions of a low molecular weight gelator (LMWG) on its fiber to nanosphere morphology transformation with a gel-to-sol phase transition

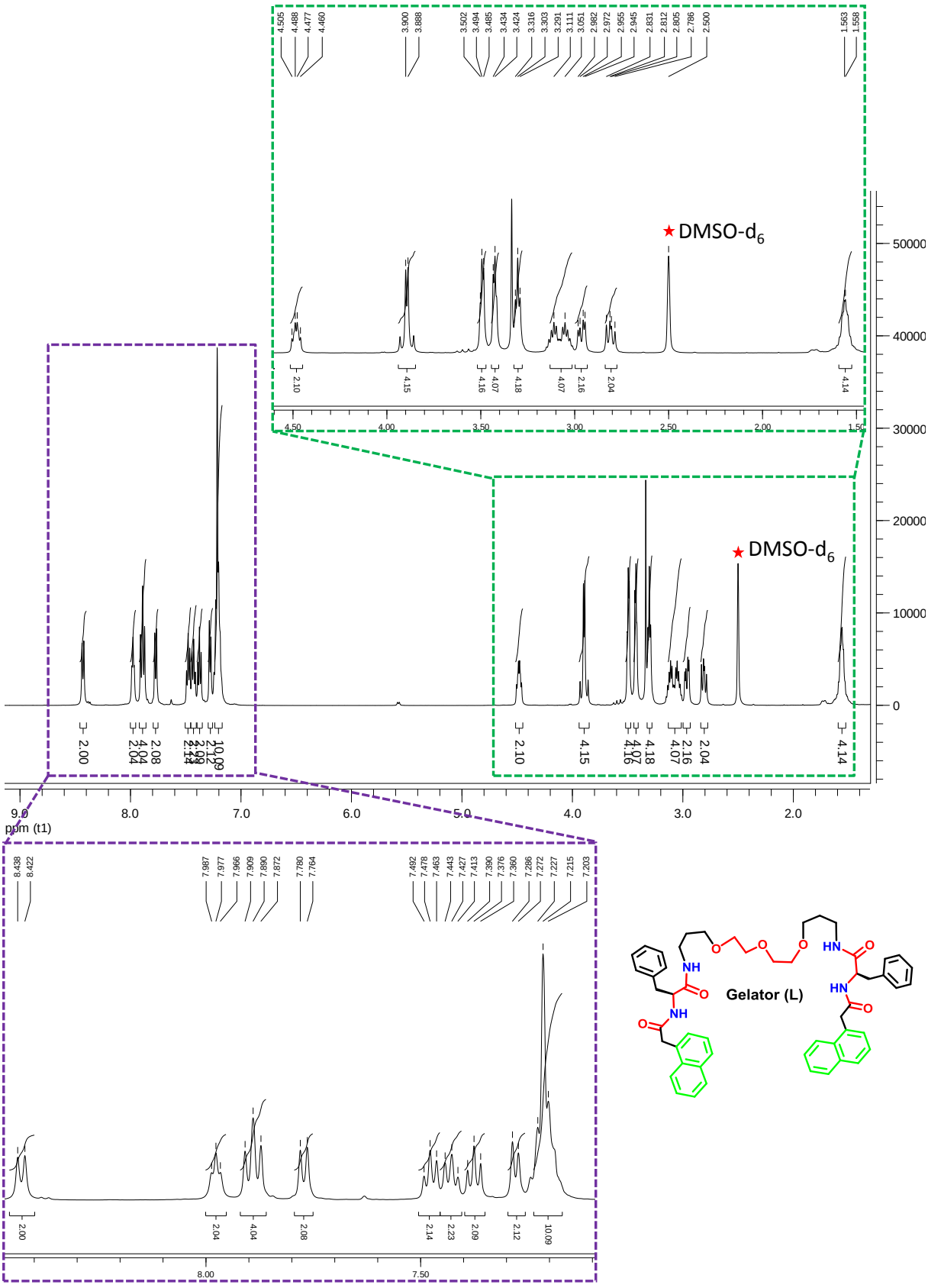
Arunava Maity,*[ab] Ananta Dey,[bc] Mrinal Kanti Si,[bc] Biswajit Ganguly,*[bc] and Amitava Das*[bc]

[a]*Organic Chemistry Division, CSIR-National Chemical Laboratory, Pune 411008, Maharashtra, India.*

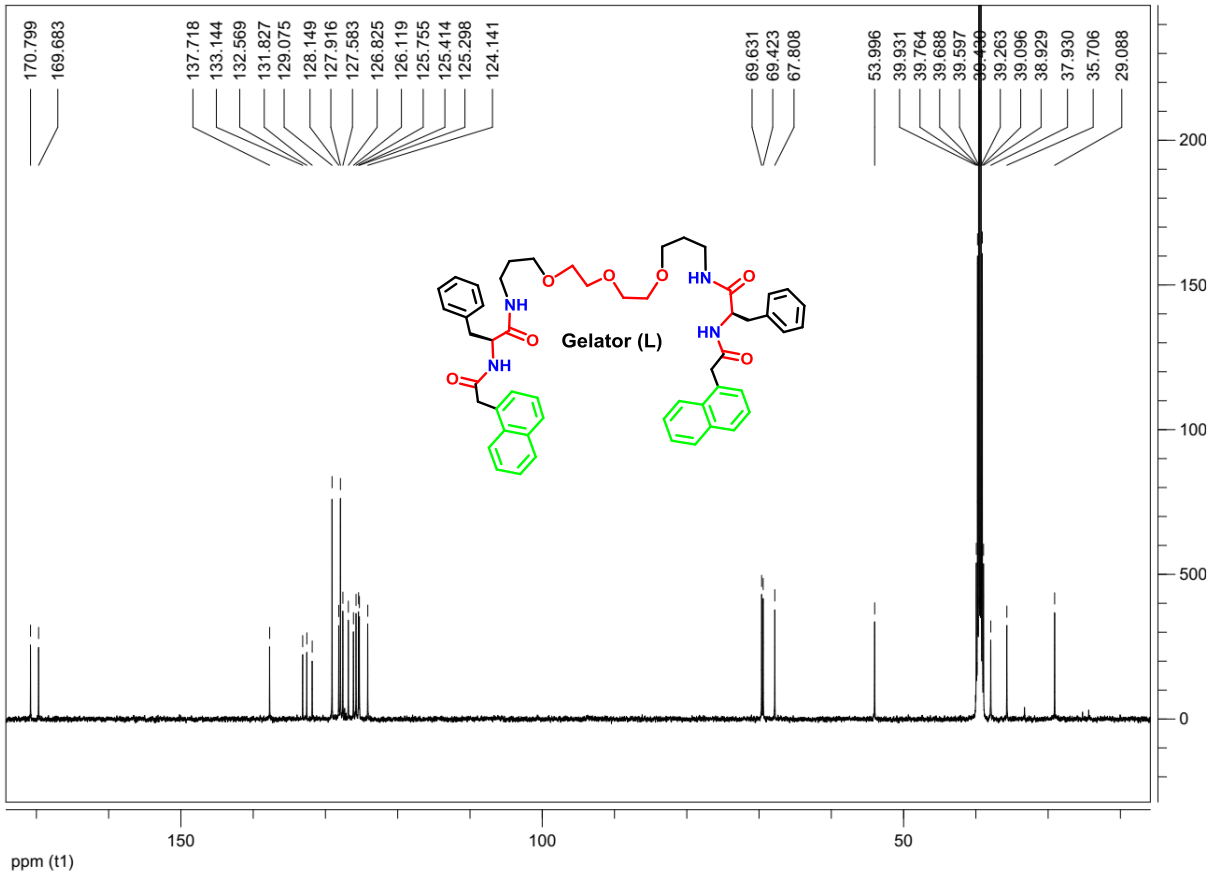
[b]*Academy of Scientific and Innovative Research (AcSIR), New Delhi, India.*

[c]*CSIR-Central Salt & Marine Chemicals Research Institute, Bhavnagar, 364002, Gujarat, India.*

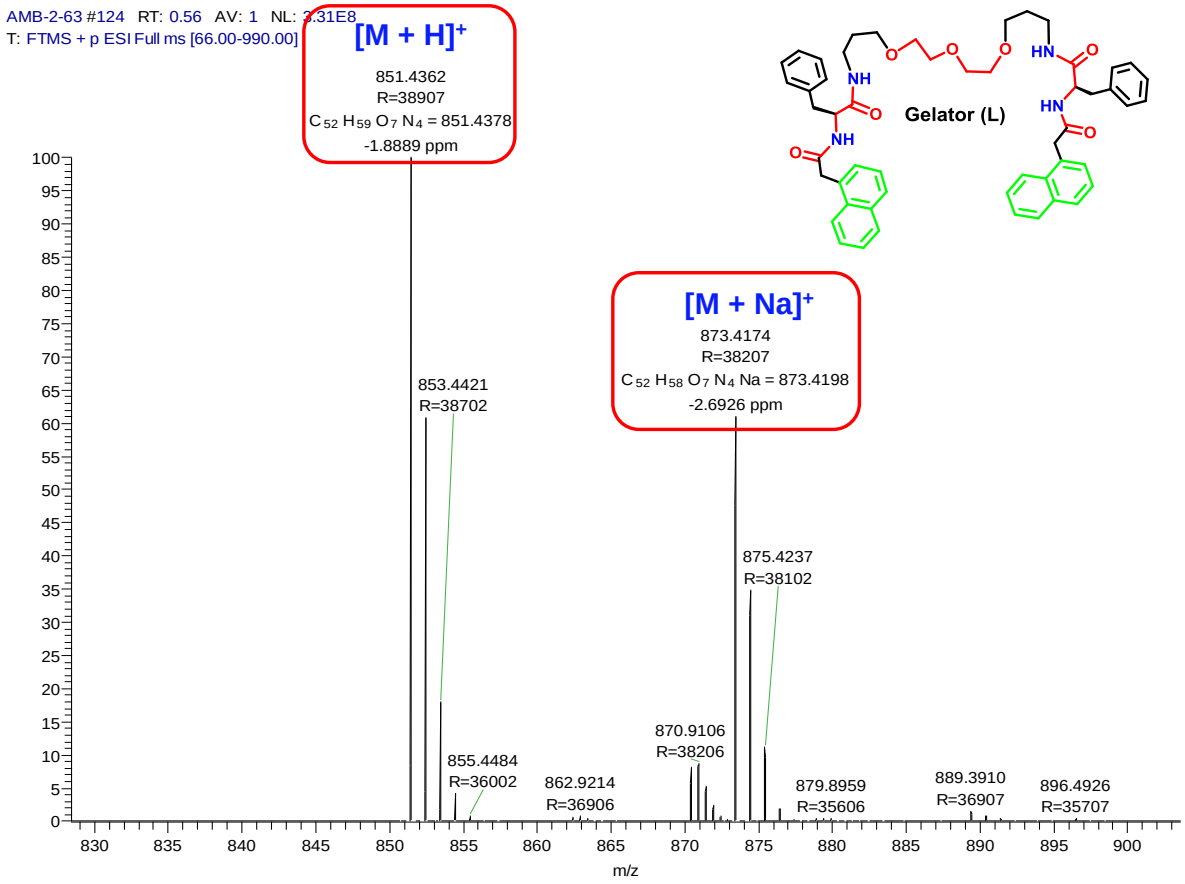
E-mail: a.maity@ncl.res.in, ganguly@csmcri.org, a.das@csmcri.res.in



^{1}H NMR (500 MHz) of the gelator **L** in DMSO-d_6.



^{13}H NMR (125 MHz) of the gelator **L** in DMSO-d_6.



HRMS (ESI) spectrum of the gelator **L**.

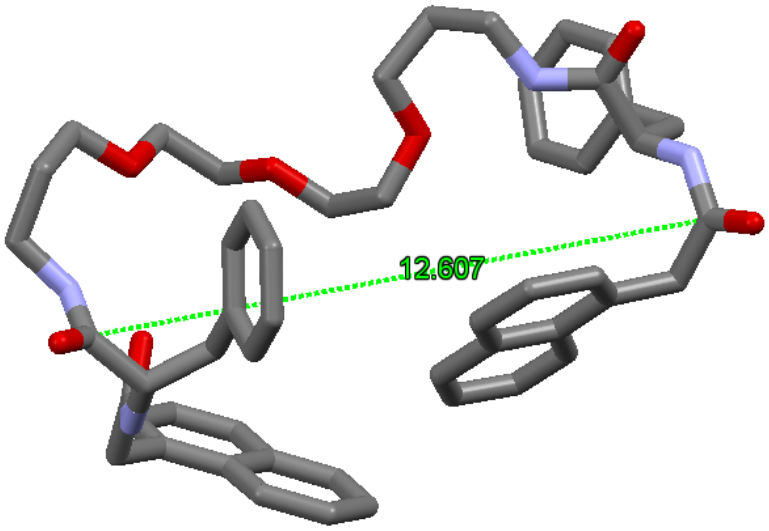


Fig. S1 Measured folded molecular length (~12.60 Å) of **L** from its energy optimised structure. H atoms are omitted for clarity. (Color code: red = oxygen; blue = nitrogen; grey = carbon)

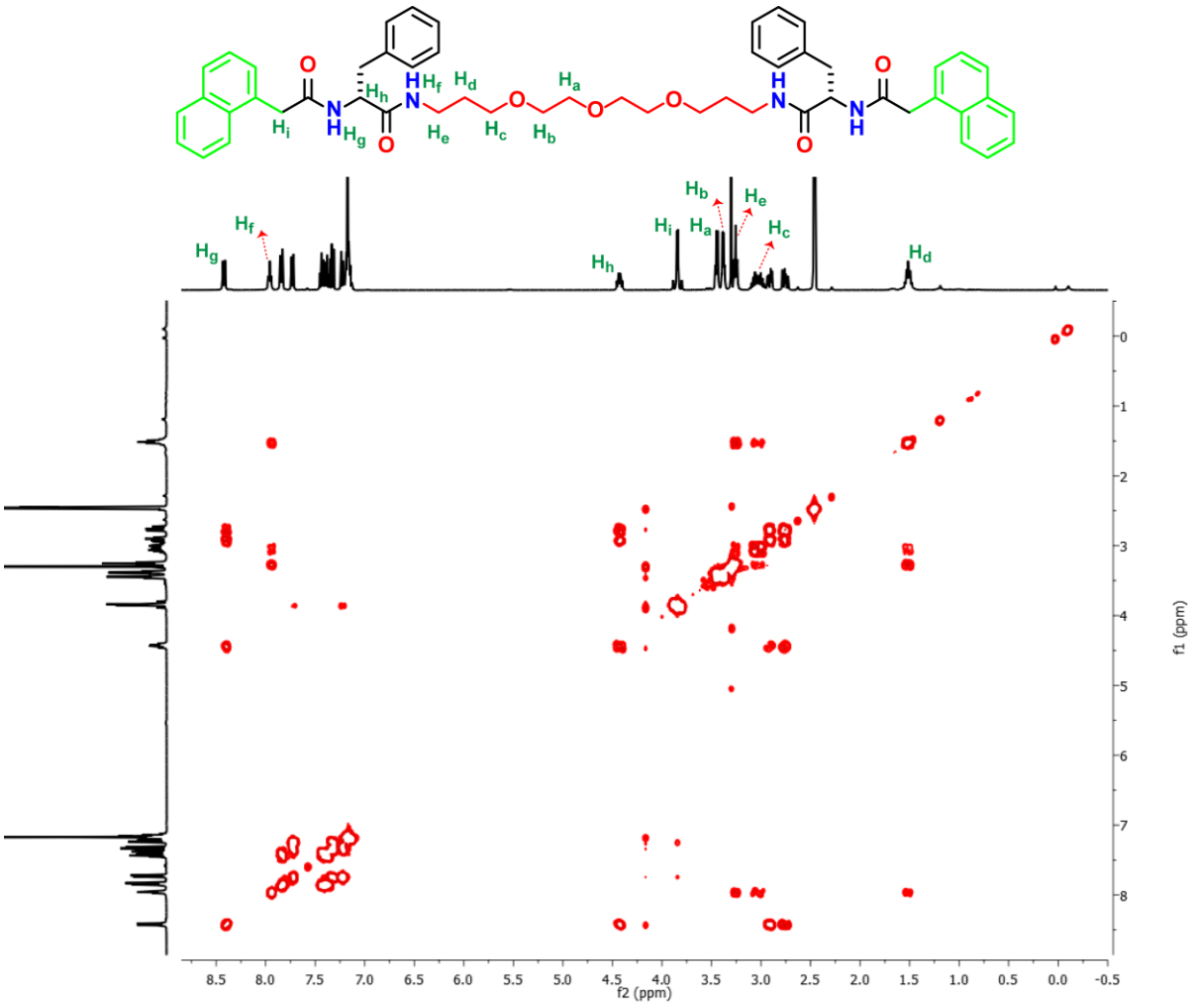


Fig. S2 TOCSY ^{1}H NMR (400 MHz) spectra of gelator **L**.

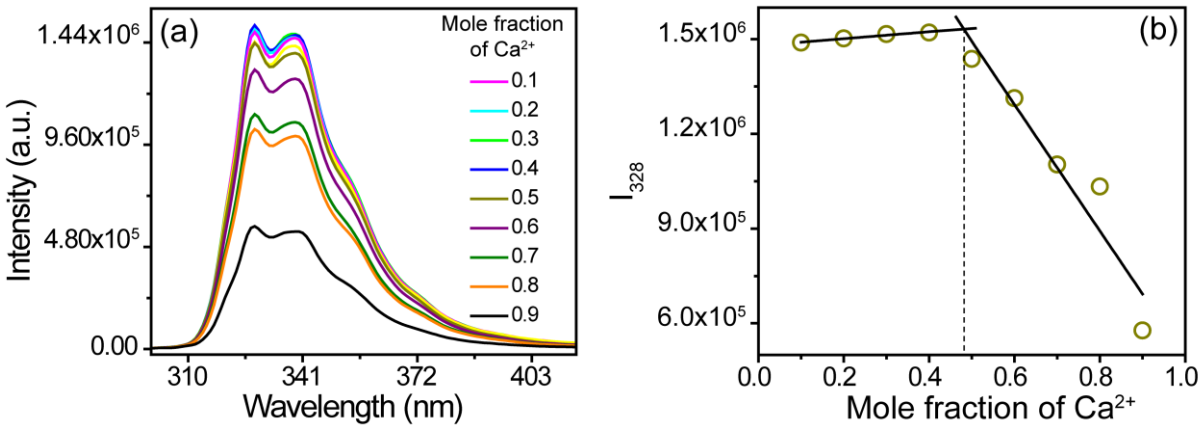


Fig. S3 (a) Emission spectra of the gelator **L** in presence of Ca^{2+} in acetonitrile solvent medium (λ_{ex} = 283 nm). Spectrums were recorded by continuous varying of both the mole fraction of L and Ca^{2+} keeping a constant overall concentration of 5.0 X 10^{-4} M of the medium. (b) Jobs plot analysis of the binding of **L** with Ca^{2+} from the corresponding emission spectra.