ELECTRONIC SUPPLEMENTARY INFORMATION (ESI)

Glycosyl squaramide: a new class of supramolecular gelators

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Figure ESI1. Physical appearance of the gel formed by **6** in EtOH:H_2O (1:1) 15 months after formulation.

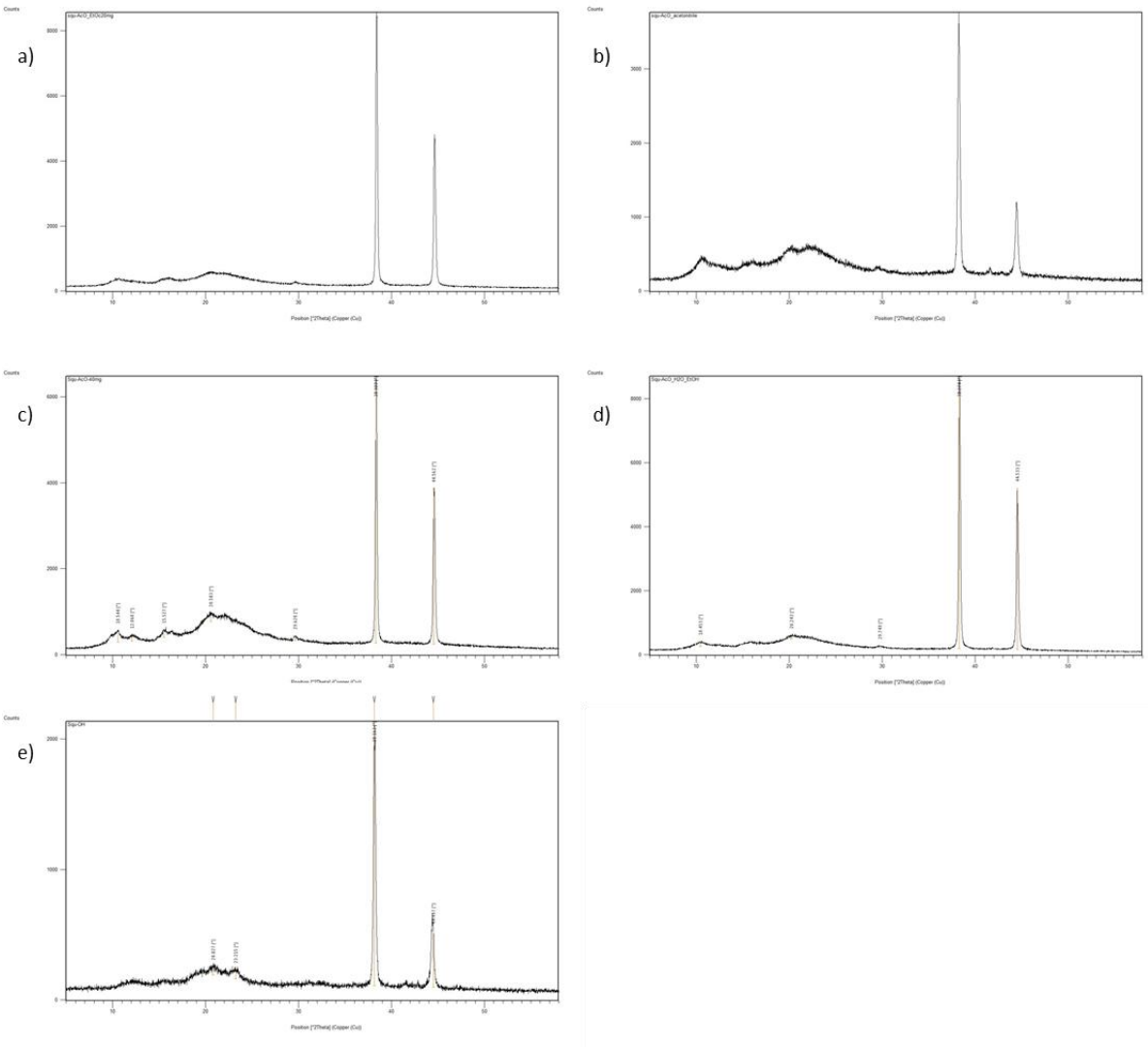

Figure ESI2. XRD diffractograms of glycosquaramides xerogels: a) **5** in EtOAc; b) **5** in MeCN; c) **5** in EtOH; d) **5** in EtOH:H_2O (1:1); e) **6** in EtOH:H_2O (1:1). All gels were prepared at CGC. X-ray powder patterns were recorded on an Inel Equinox 3000 powder diffractometer, fitted with a curved position sensitive detector (calibrated usingY_2O_3) between 5 and 60 ° (2ϑ) using Cu K_α radiation (λ = 1.54178 Å). Settings: X-ray tube: 35 kV, 25 mA; Scan time: 1200 s. The peaks at 38.2 and 44.3 are from the Al sample holder. Because of the small sample sizes, the floor of the sample holder was not completely covered.

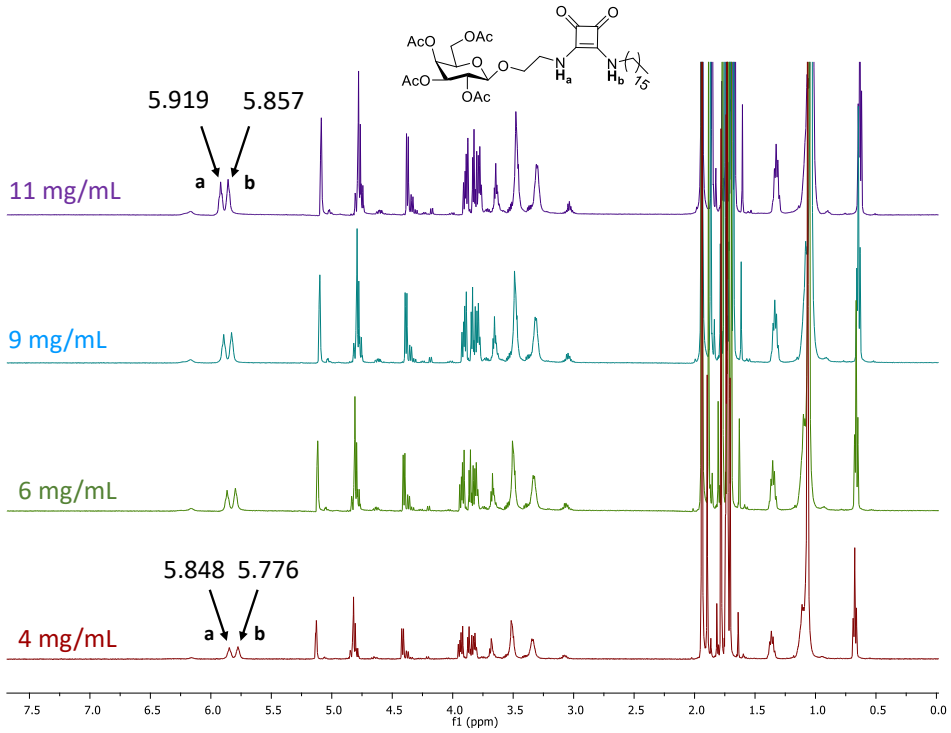

Figure ESI3. ^{1}H-NMR spectra of **5** in (D_3)-acetonitrile at increasing concentrations. The solutions were prepared in a NMR tube and heated to aid the solubility of the gelator in the solvent. Spectra were measured at 300 K (27 °C), which is the standard operation temperature of the NMR spectrometer.

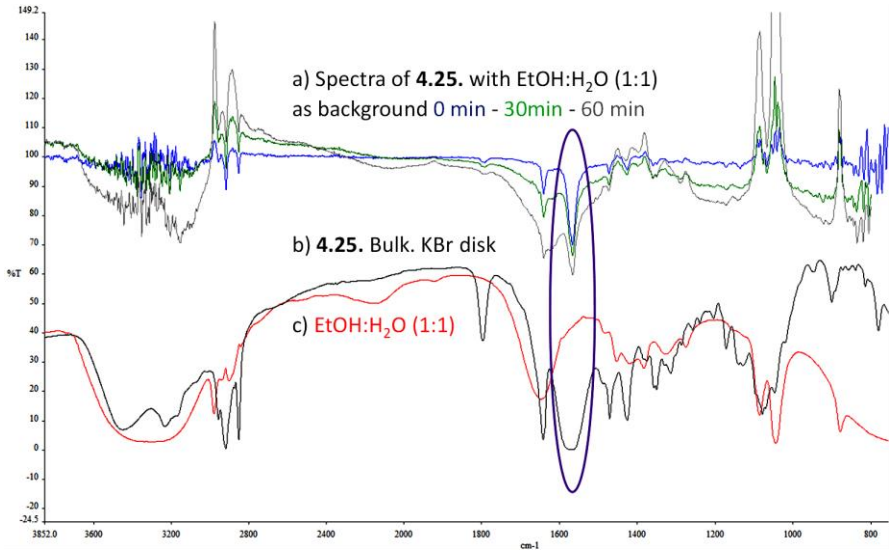

Figure ESI4. a) FTIR-ATR spectra of **4.25.** 0.1 w/v % with EtOH:H_2O (1:1) as background from 0 – 60 min; b) **4.25.** Bulk state (KBr disk) and c) FTIR-ATR spectra of EtOH:H_2O (1:1).

Figure ESI5. *^{1}H NMR spectrum of 3,4-di(prop-2-yn-1-ylamino)cyclobut-3-ene-1,2-dione* **1**

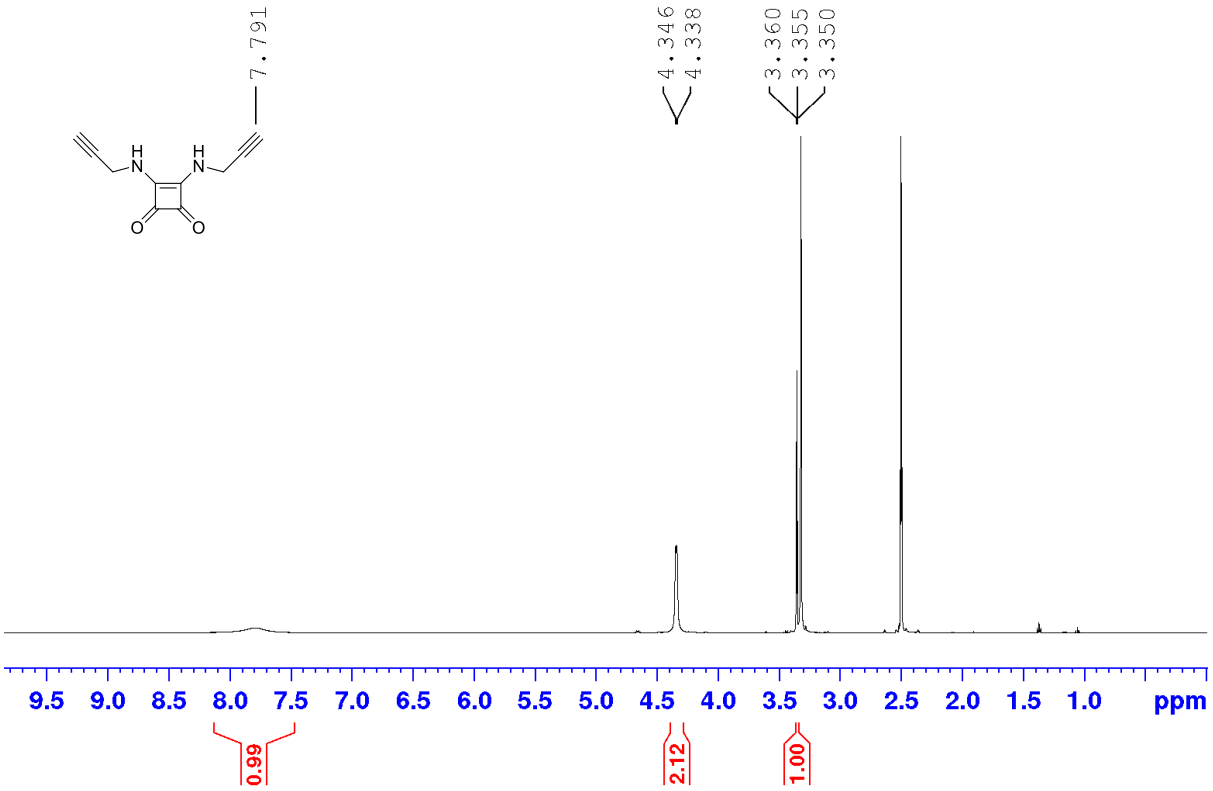

Figure ESI6. *^{13}C NMR spectrum of 3,4-di(prop-2-yn-1-ylamino)cyclobut-3-ene-1,2-dione* **1**

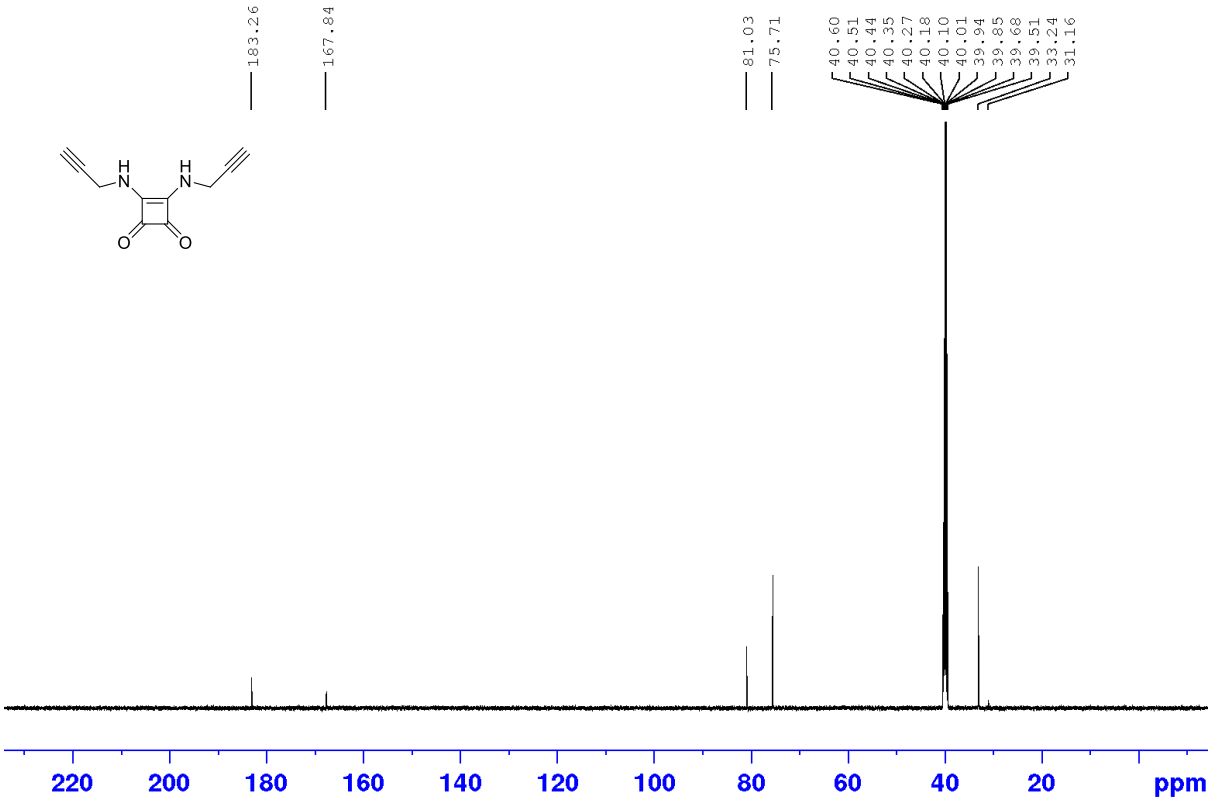

Figure ESI7. *^{1}H NMR spectrum of 3,4-di(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl-1,2,3-triazol-4-ylmethylamino)cyclobut-3-ene-1,2-dione* **2**

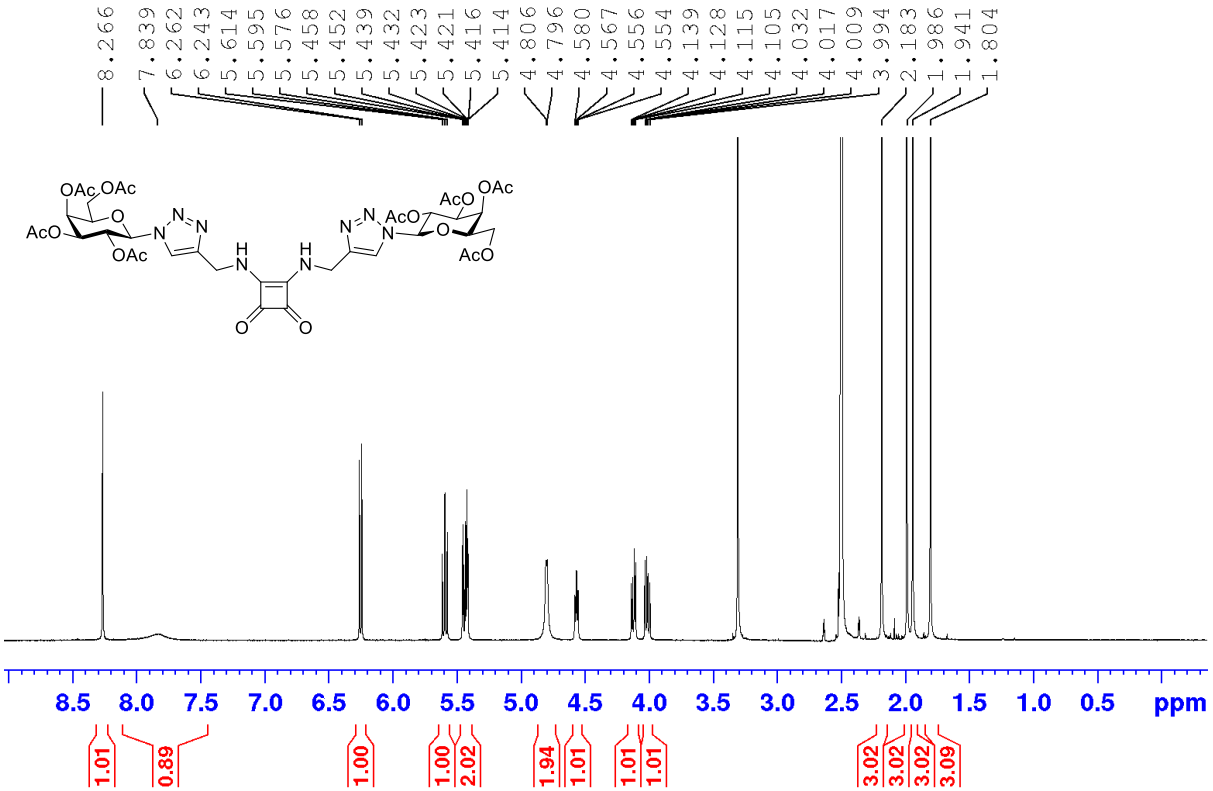

Figure ESI8. *^{13}C NMR spectrum of 3,4-di(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl-1,2,3-triazol-4-ylmethylamino)cyclobut-3-ene-1,2-dione* **2**

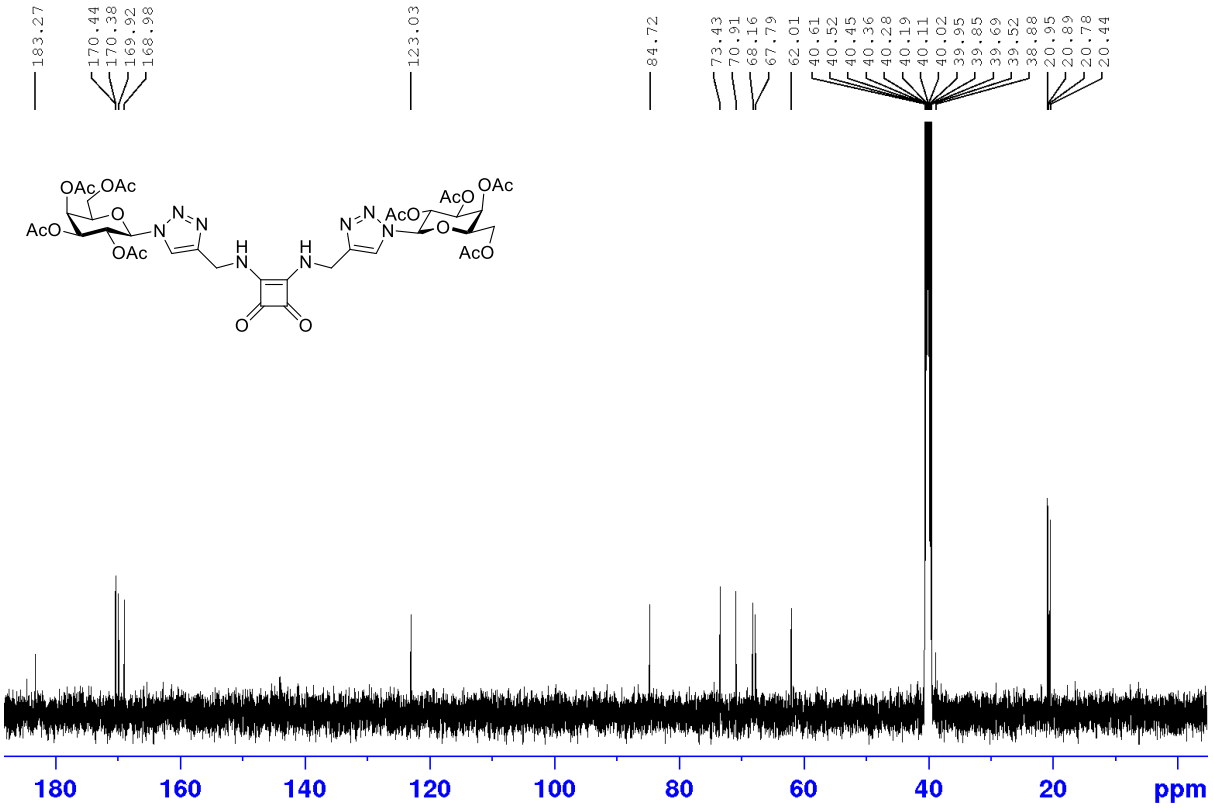

Figure ESI9. *^{1}H NMR spectrum of 3,4-di(β-D-galactopyranosyl-1,2,3-triazol-4-ylmethylamino)cyclobut-3-ene-1,2-dione* **3**

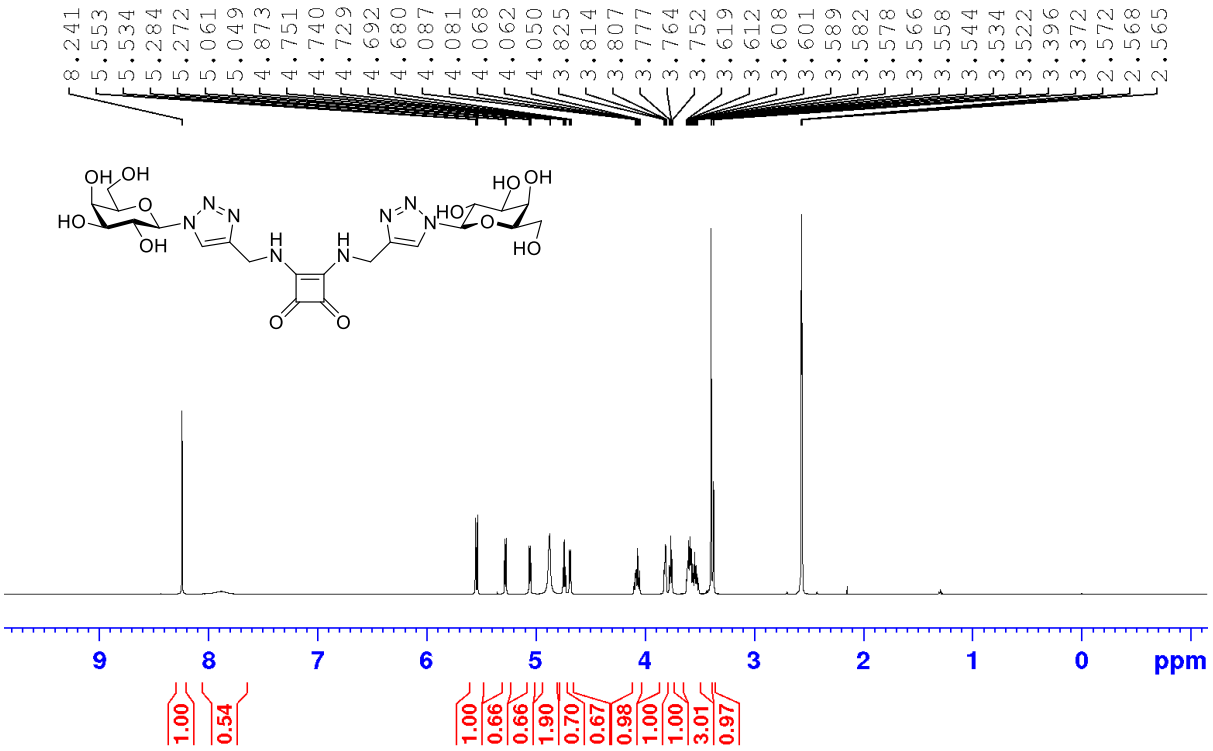

Figure ESI10. *^{13}C NMR spectrum of 3,4-di(β-D-galactopyranosyl-1,2,3-triazol-4-ylmethylamino)cyclobut-3-ene-1,2-dione* **3**

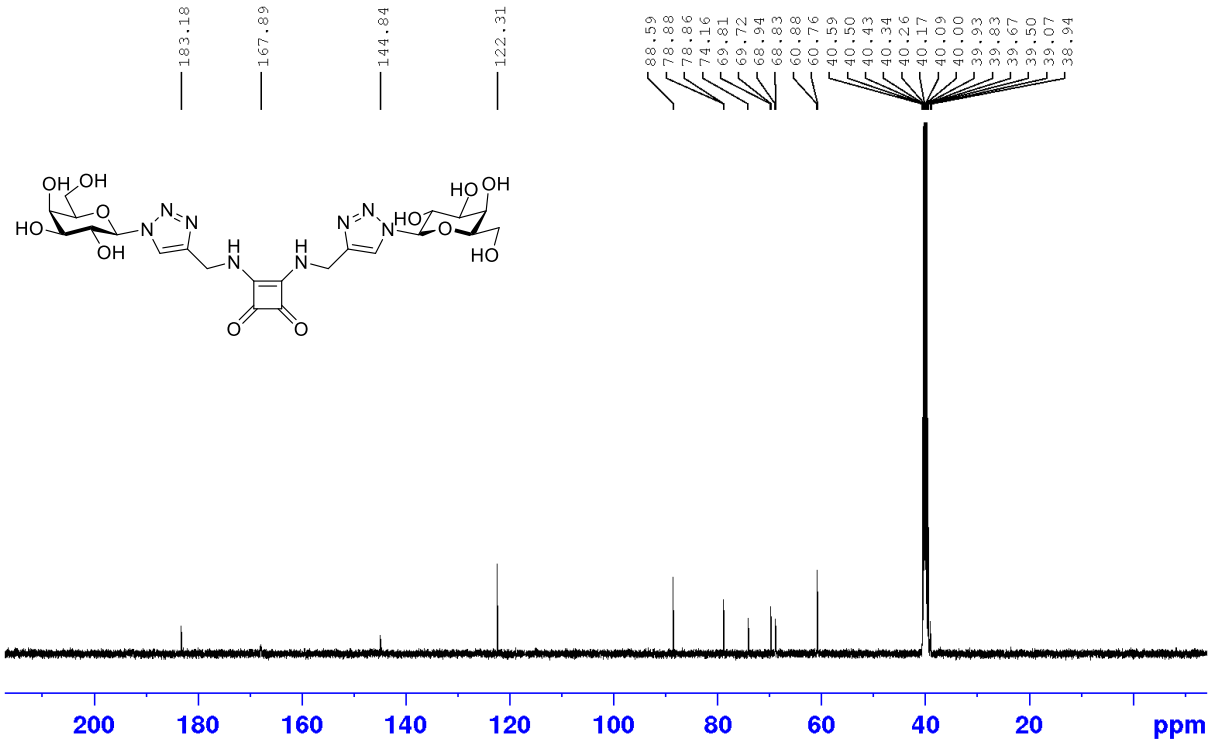

Figure ESI11.

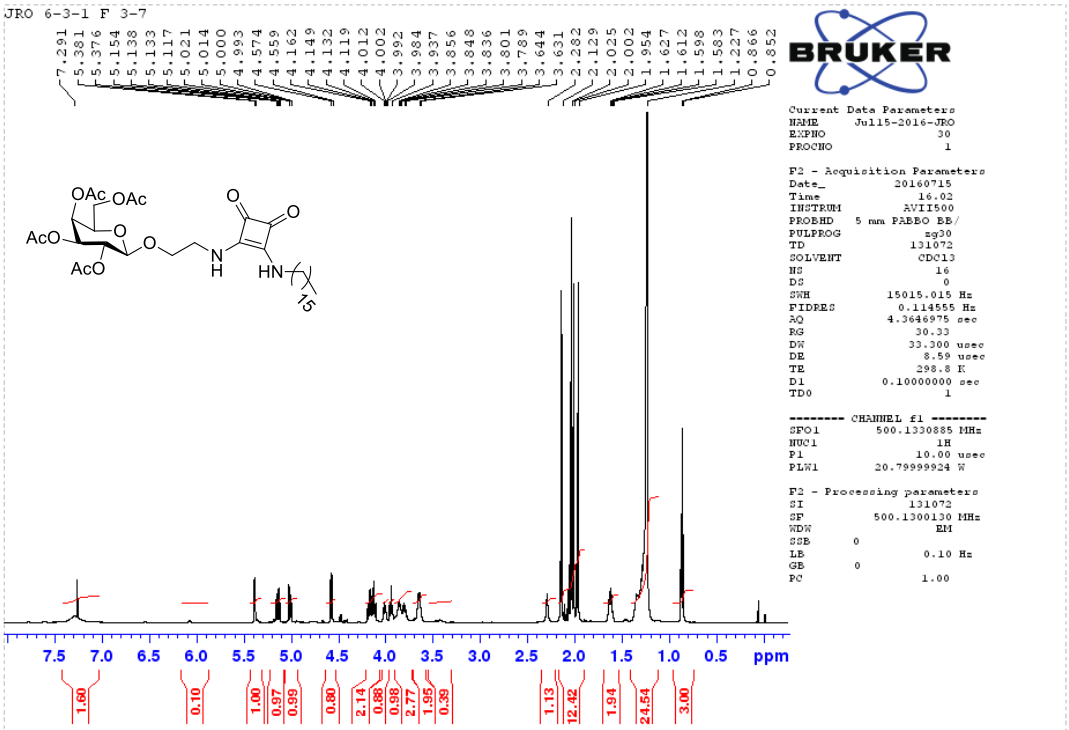

Figure ESI12.

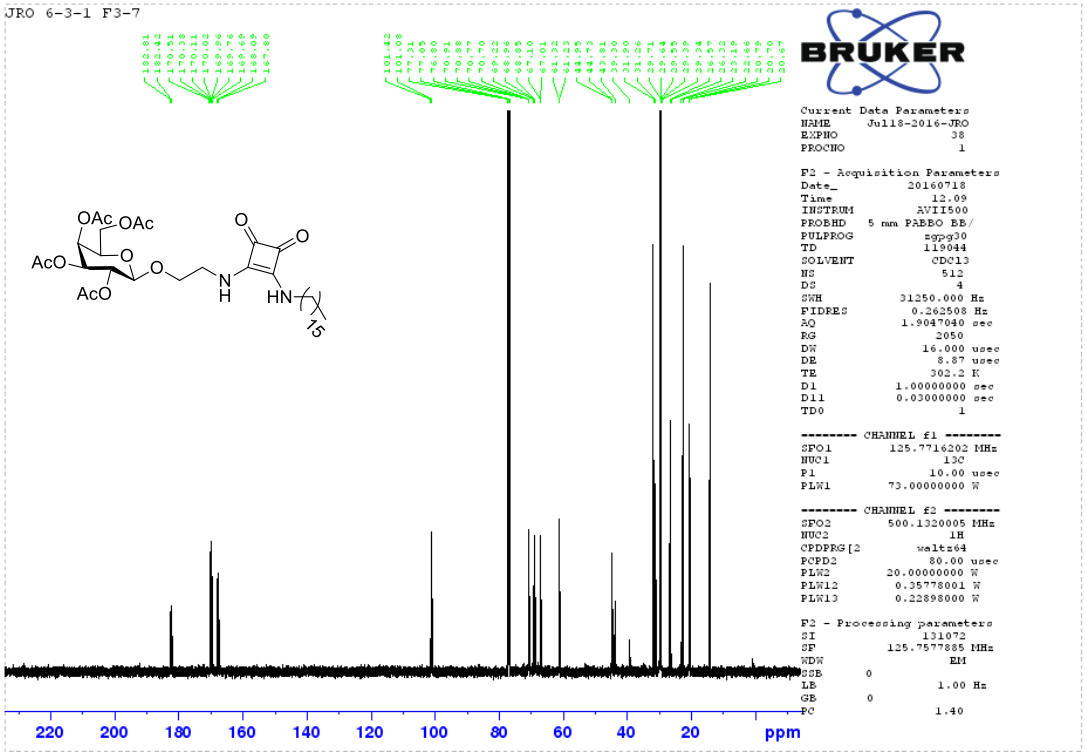

Figure ESI13.

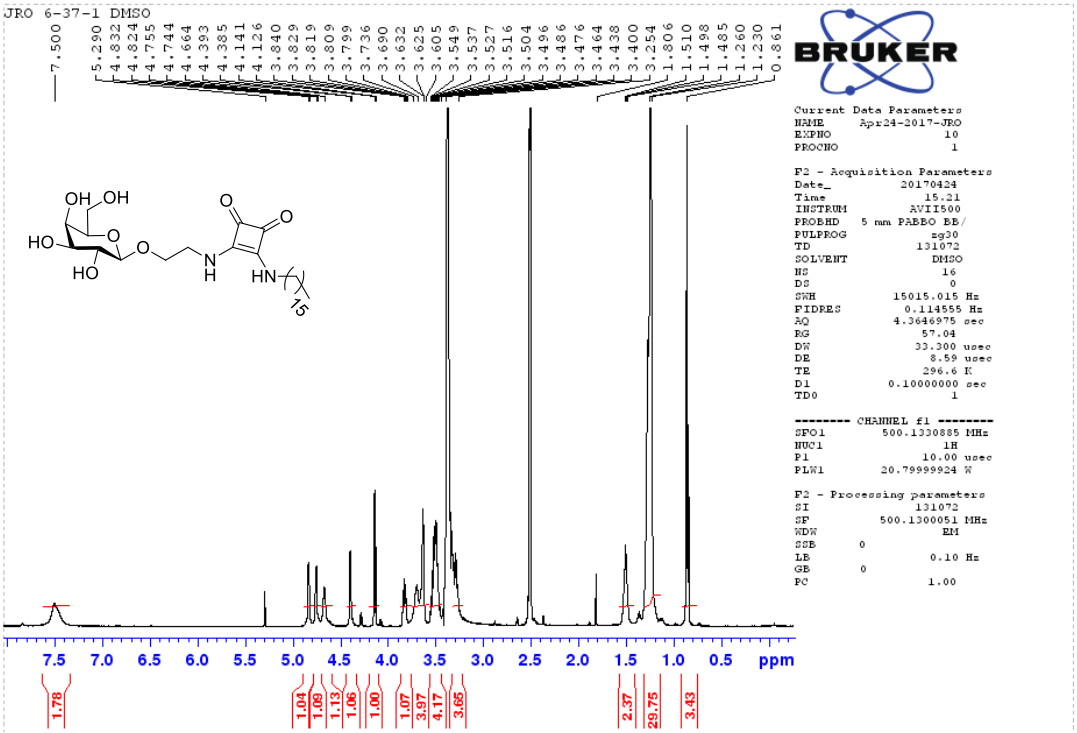

Figure ESI14.