

SUPPORTING INFORMATION

Rapid Synthesis of Polyester Based Single-Chain Polymeric Nanoparticles via Intra-Molecular Aza-Michael Addition Reaction

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Synthesis of Poly(1,4-cyclohexanedimethylene acetylene dicarboxylate) (PCA)

Acetylenedicarboxylic acid (2.0 g, 17.5 mmol) was dissolved in 80 mL of benzene and stirred under nitrogen, 1,4-cyclohexanedimethanol (2.53 g, 17.54 mmol) and PTSA (0.34 g, 1.79 mmol) were added to the solution in that order. The mixture was gradually heated in a round-bottomed flask, with a Dean-Stark apparatus attached, in an oil bath set to 100 °C and stirred 8 h at this temperature. After that time, the solvent was removed under reduced pressure, THF was added to the residue and the mixture was precipitated in methanol. The dissolution-precipitation (THF-methanol) procedure was repeated two times. The obtained polymer was dried in a vacuum oven at room temperature for 24 h. ^1H NMR (CDCl_3 , δ) 4.17-4.08 (m, 4 H, CH_2CH), 1.94-1.05 (m, 10 H, aliphatic protons of cyclohexane); ^{13}C NMR (CDCl_3 , δ) 151.88, 74.76, 71.48, 69.40, 36.61, 34.09, 28.43, 24.97.

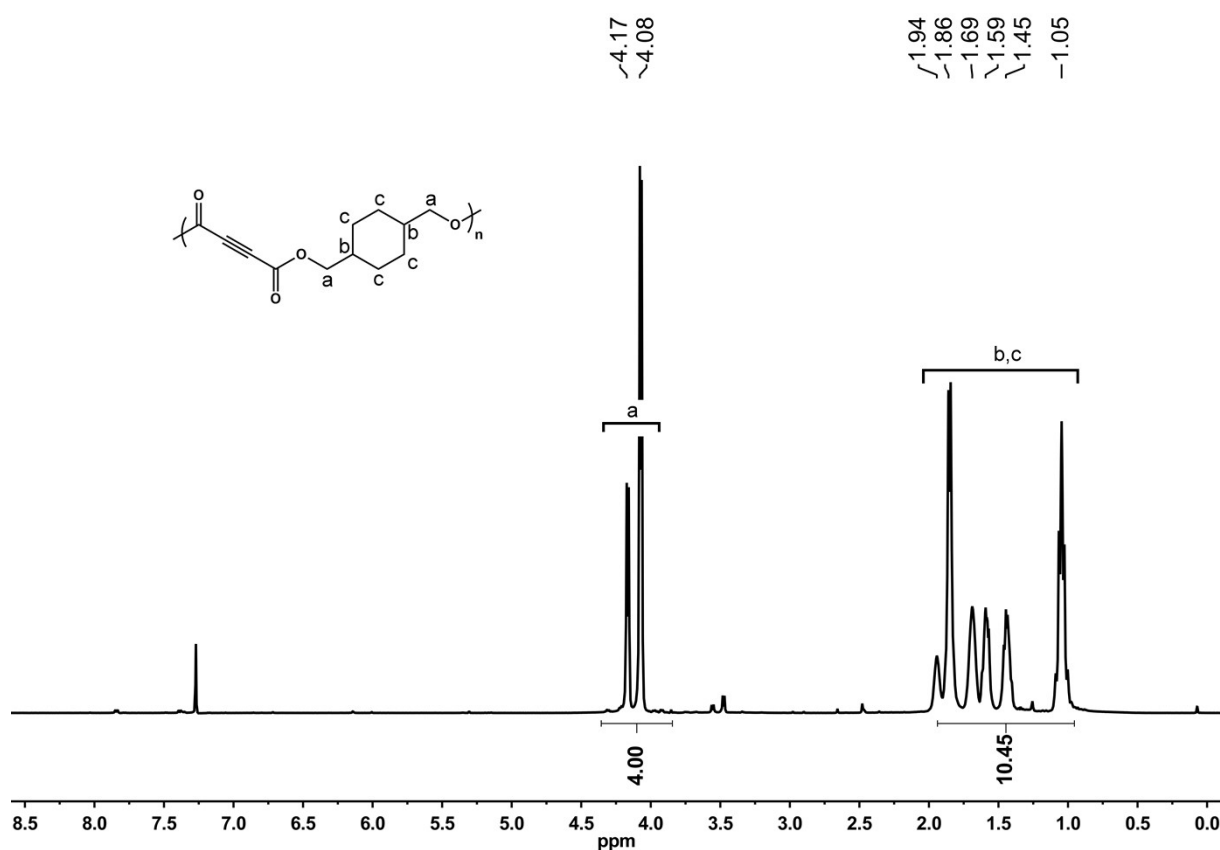


Figure S1. ^1H NMR spectrum of PCA in CDCl_3 (500 MHz).

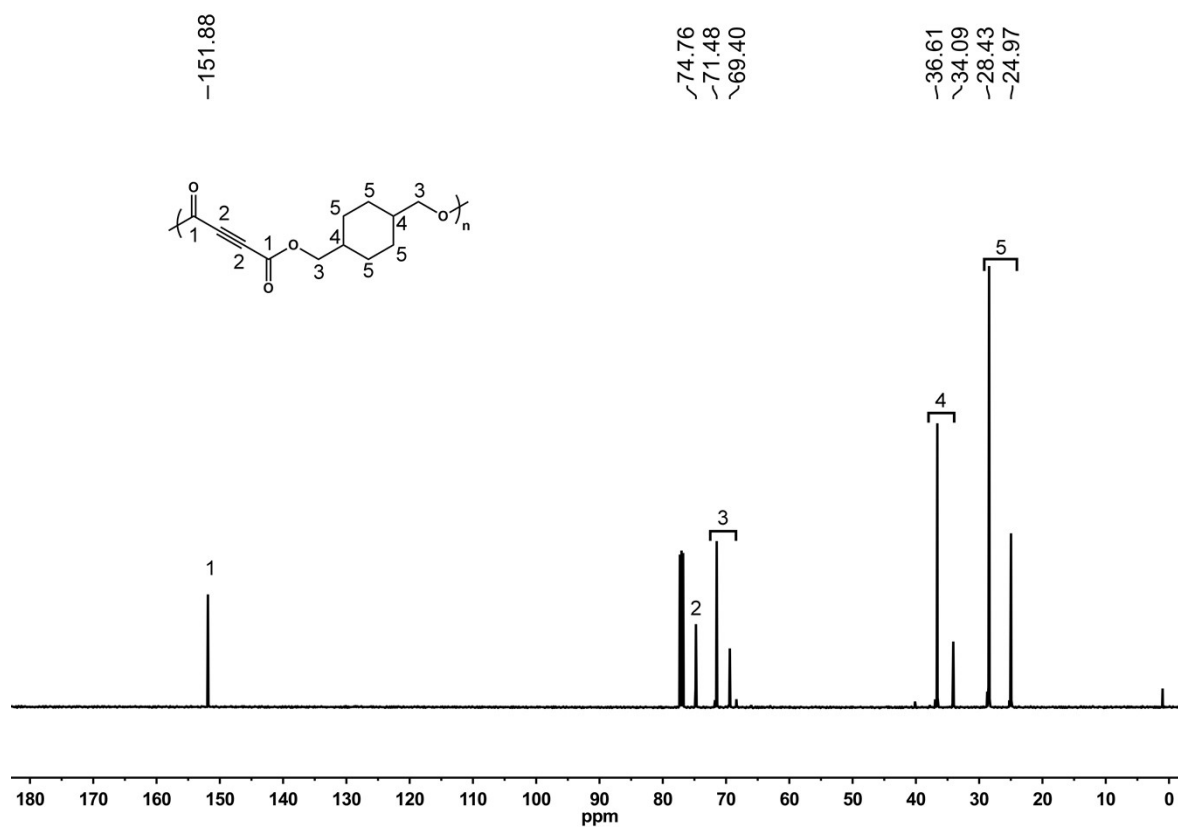


Figure S2. ^{13}C NMR spectrum of PCA in CDCl_3 (125 MHz).

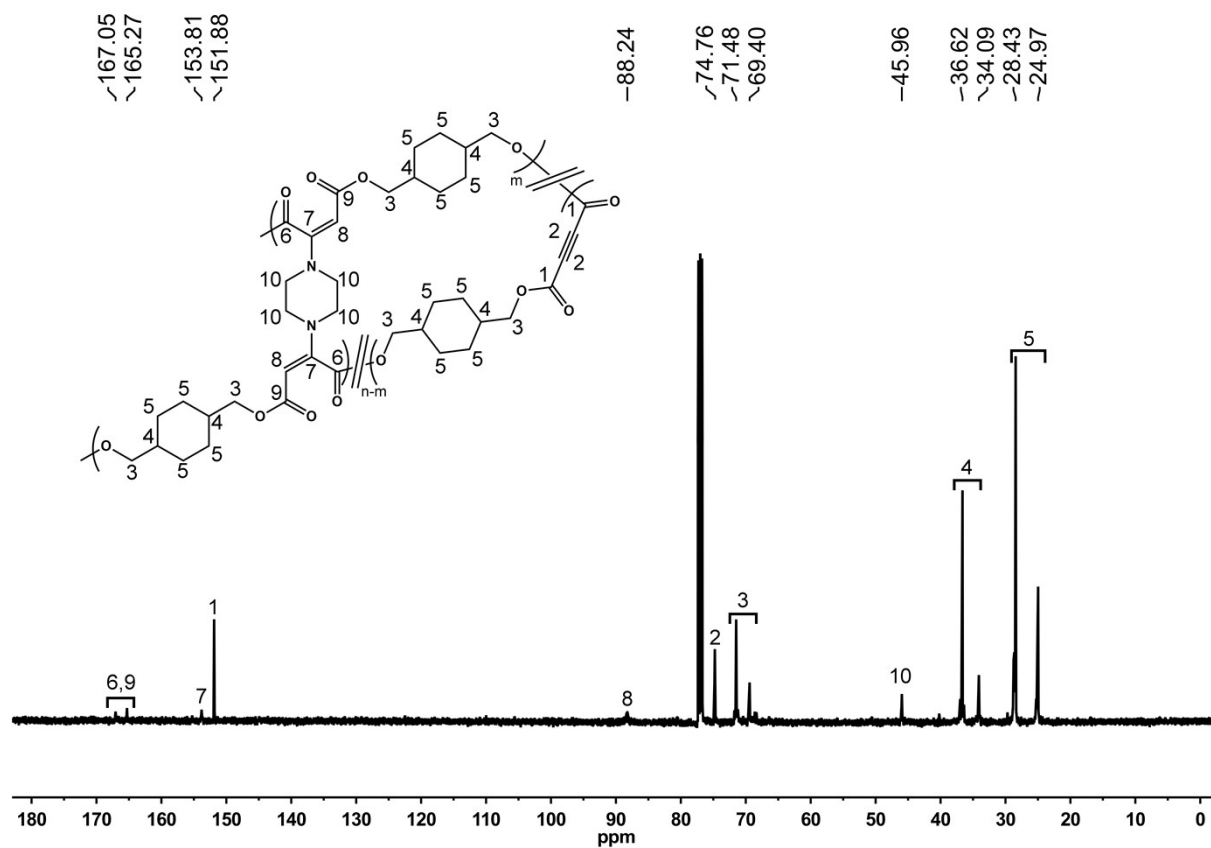
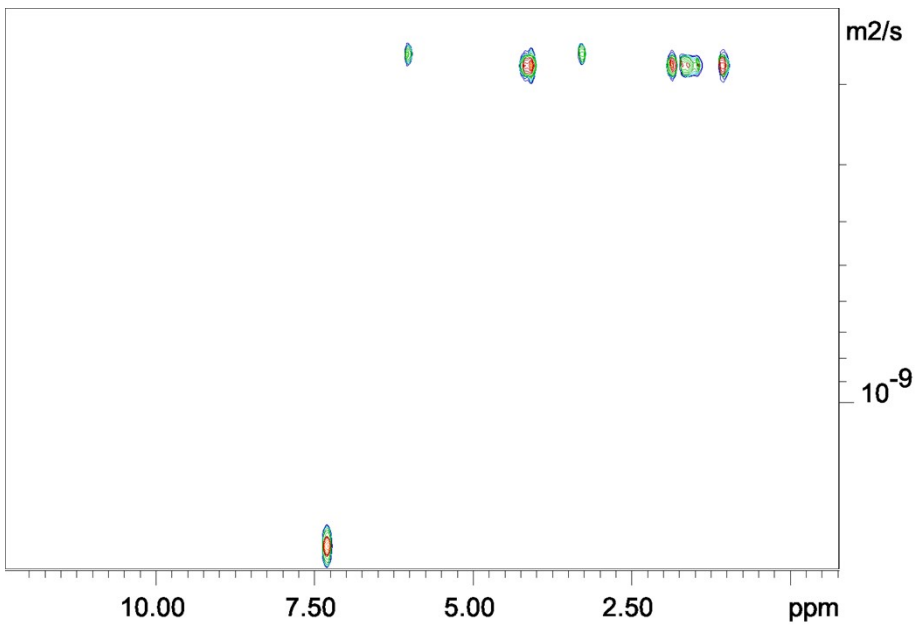
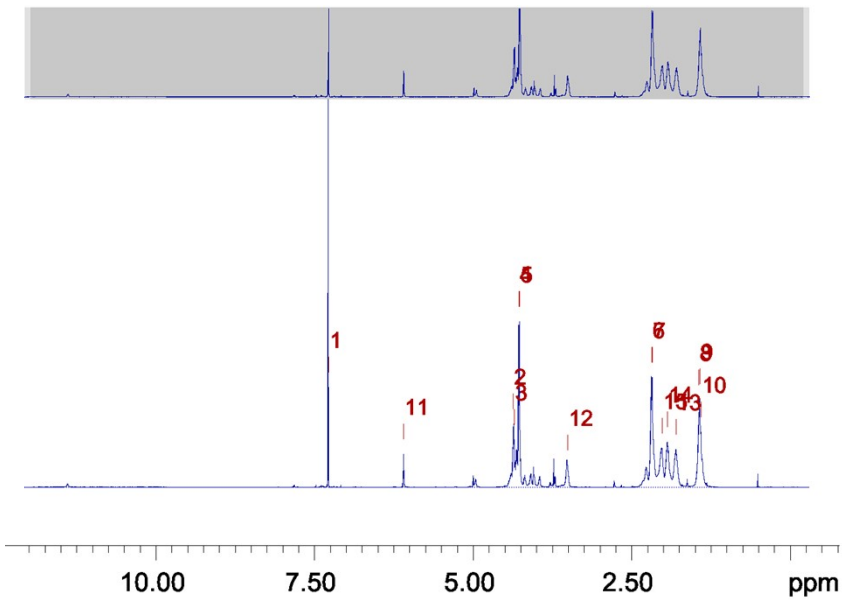
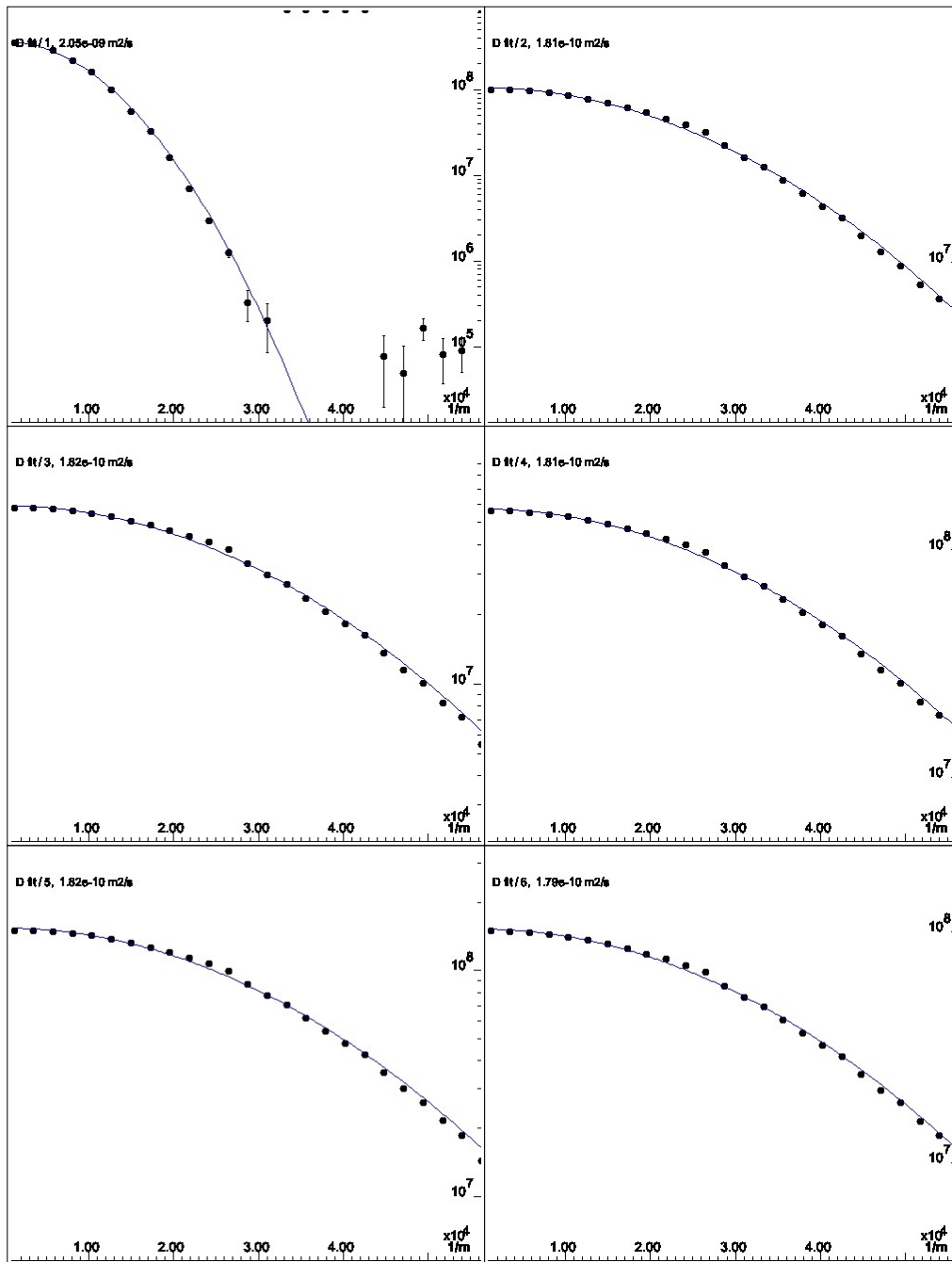
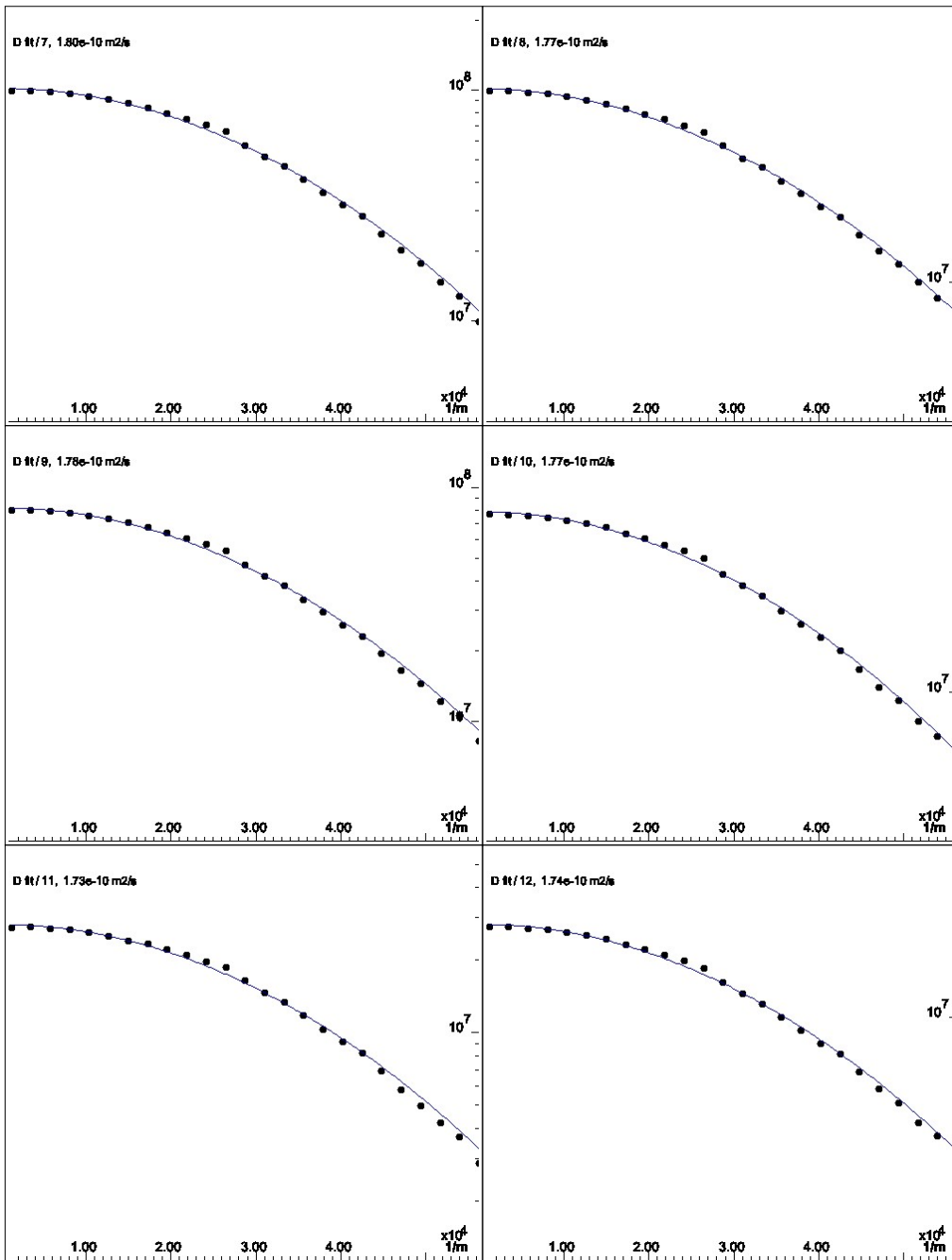


Figure S3. ^{13}C NMR spectrum of SCNP-2 in CDCl_3 (125 MHz).







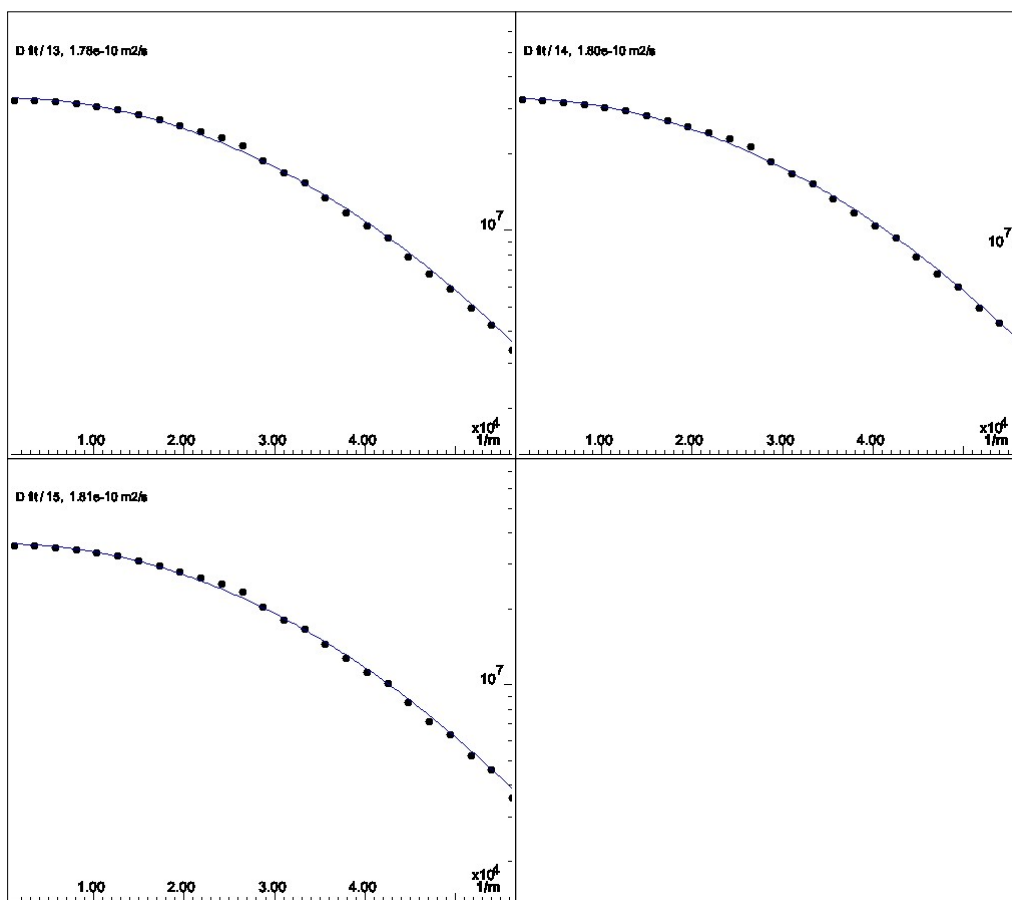
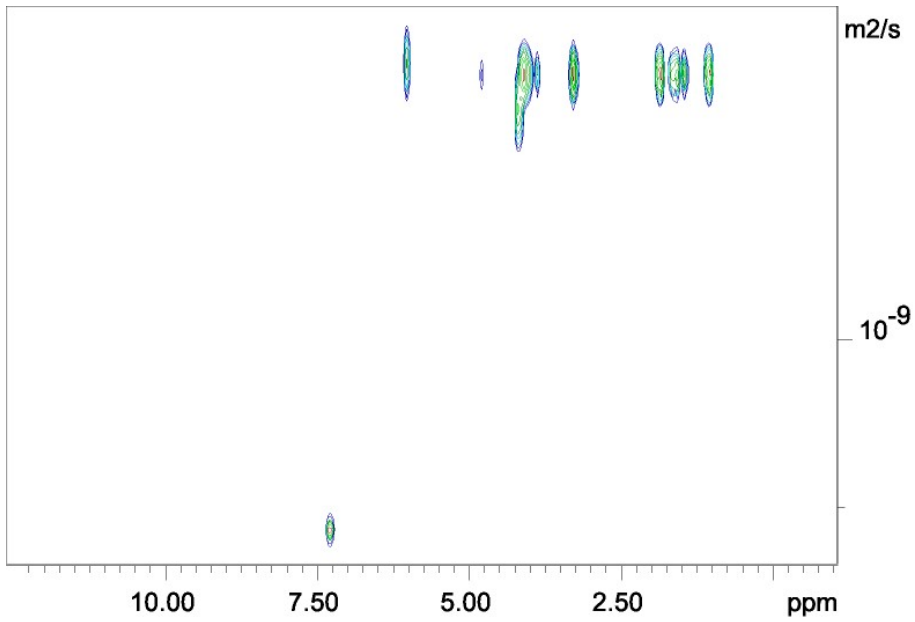
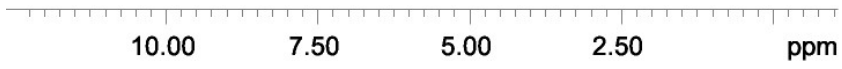
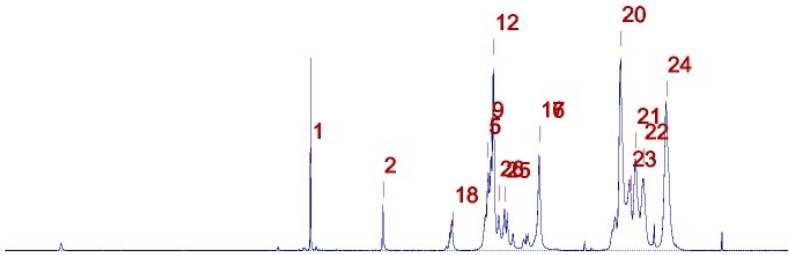
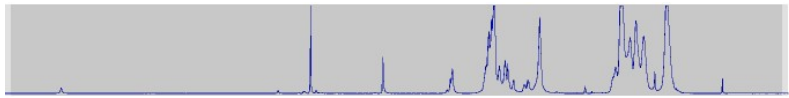
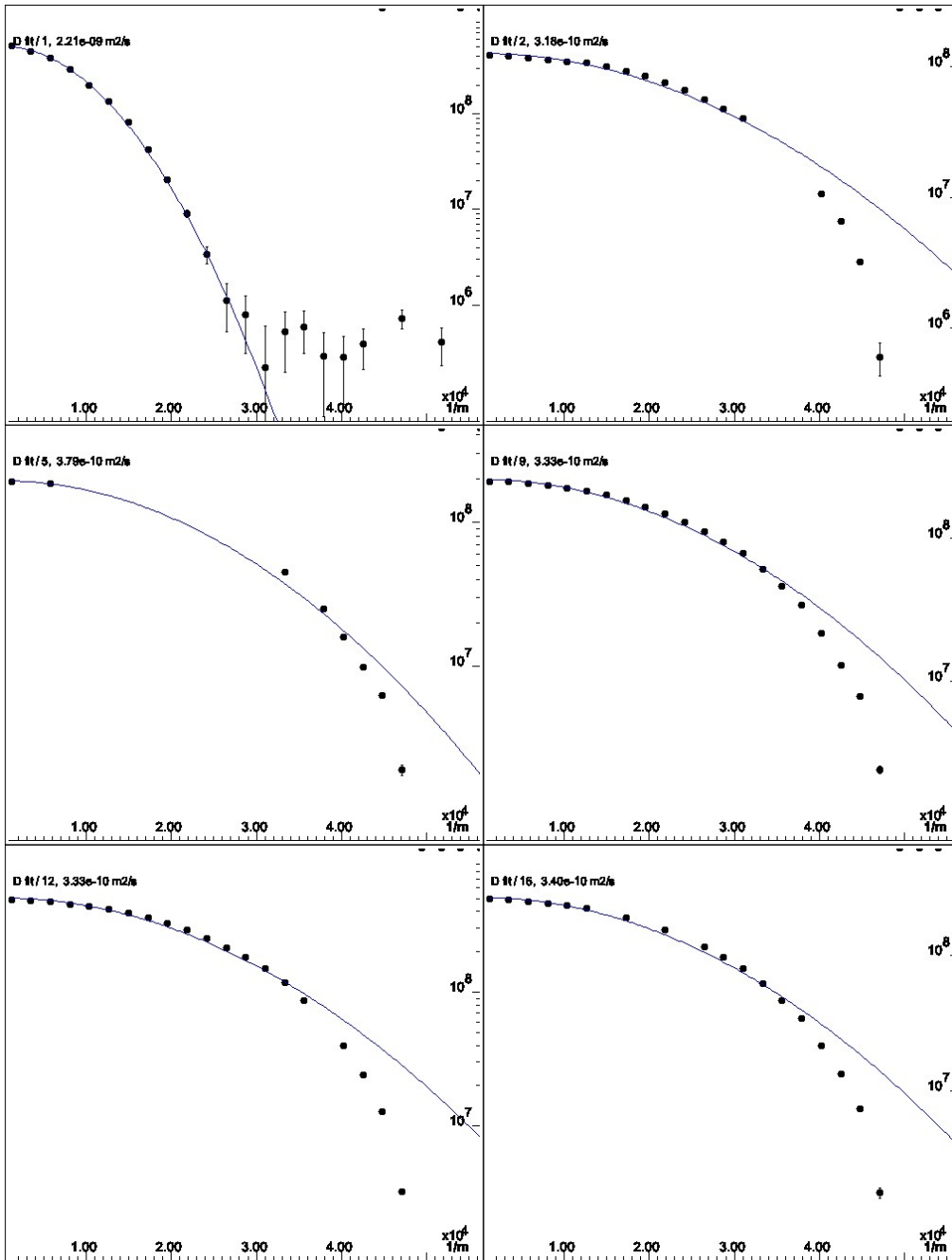
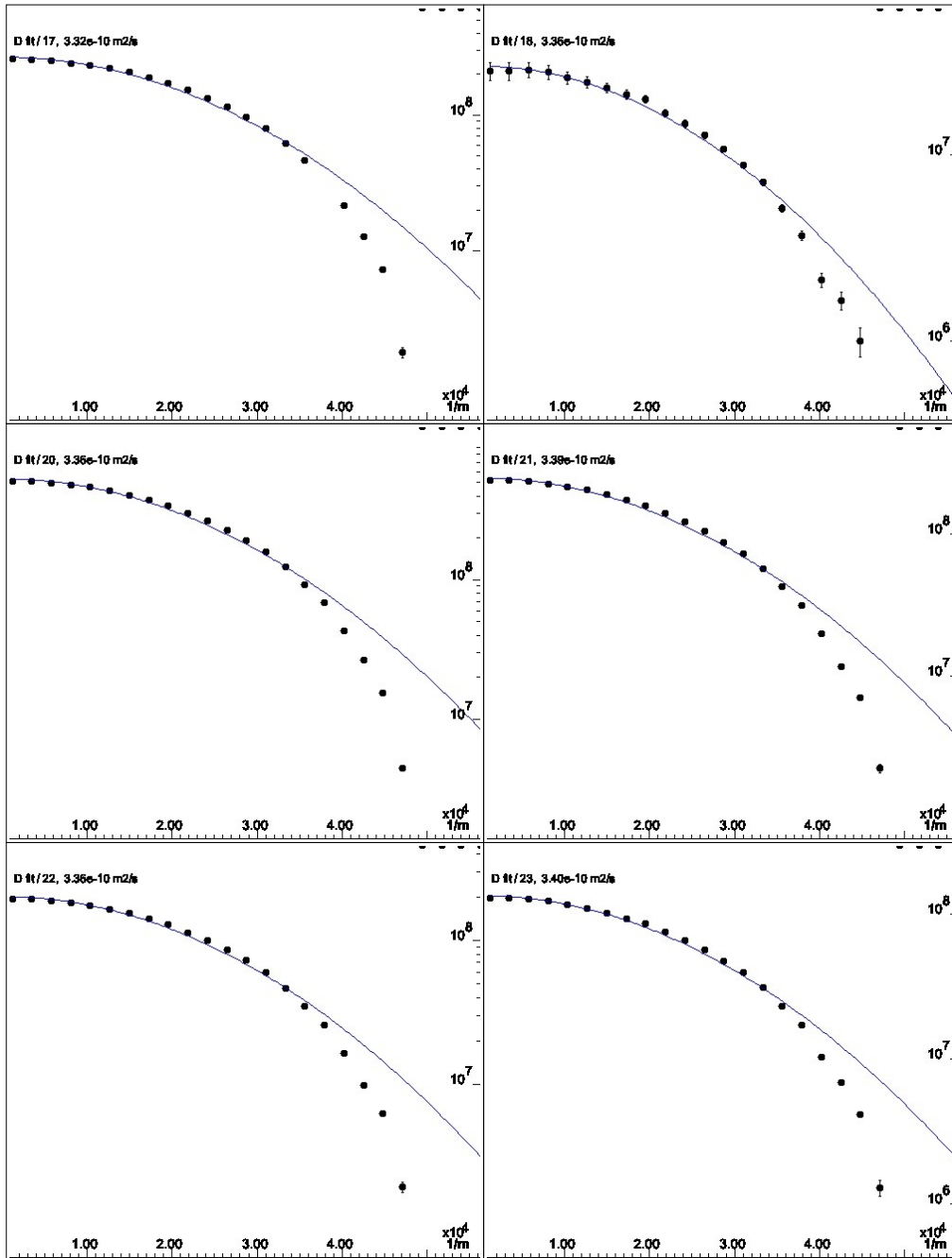


Figure S4. DOSY results of SCNP-1.







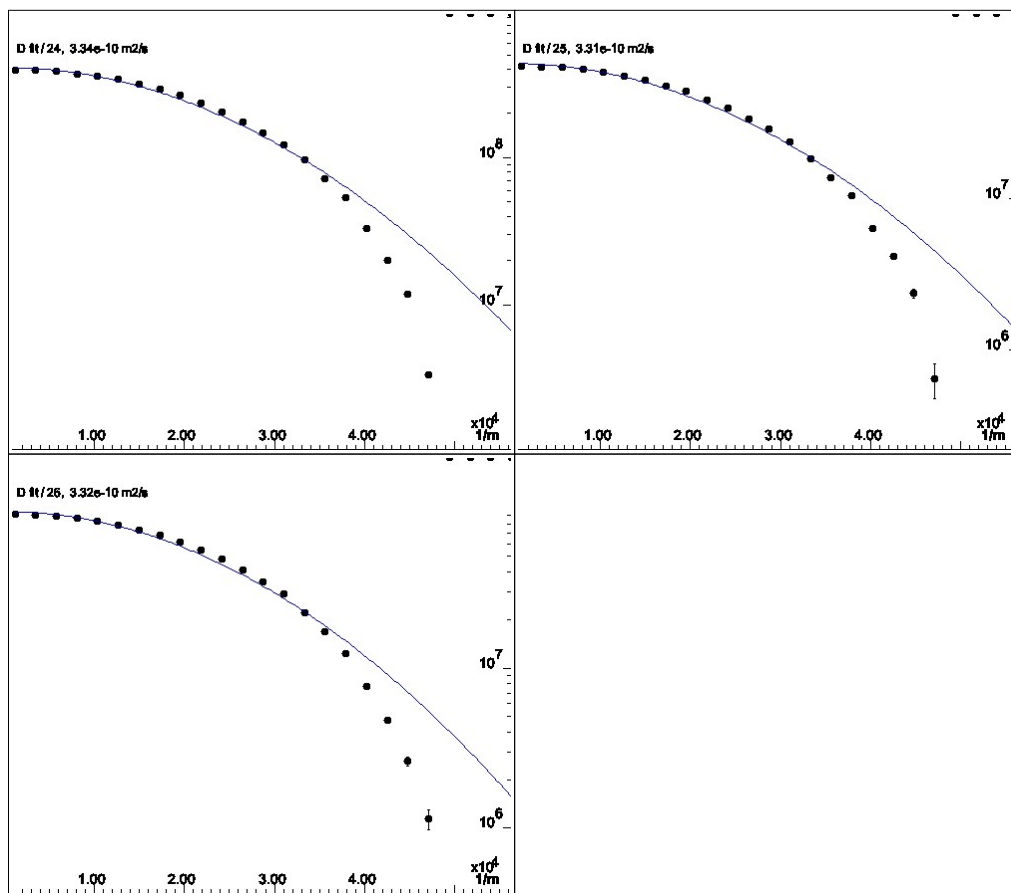


Figure S5. DOSY results of SCNP-3.