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Supplementary Files

Dipropargyl 2,2'-isophthaloylbis(hydrazinecarboxylate)

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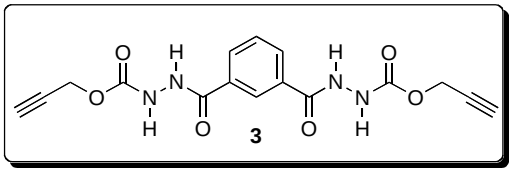
1. ^{1}H and ^{13}C NMR spectra of 2,2'-isophthaloylbis(hydrazinecarboxylate) (3)



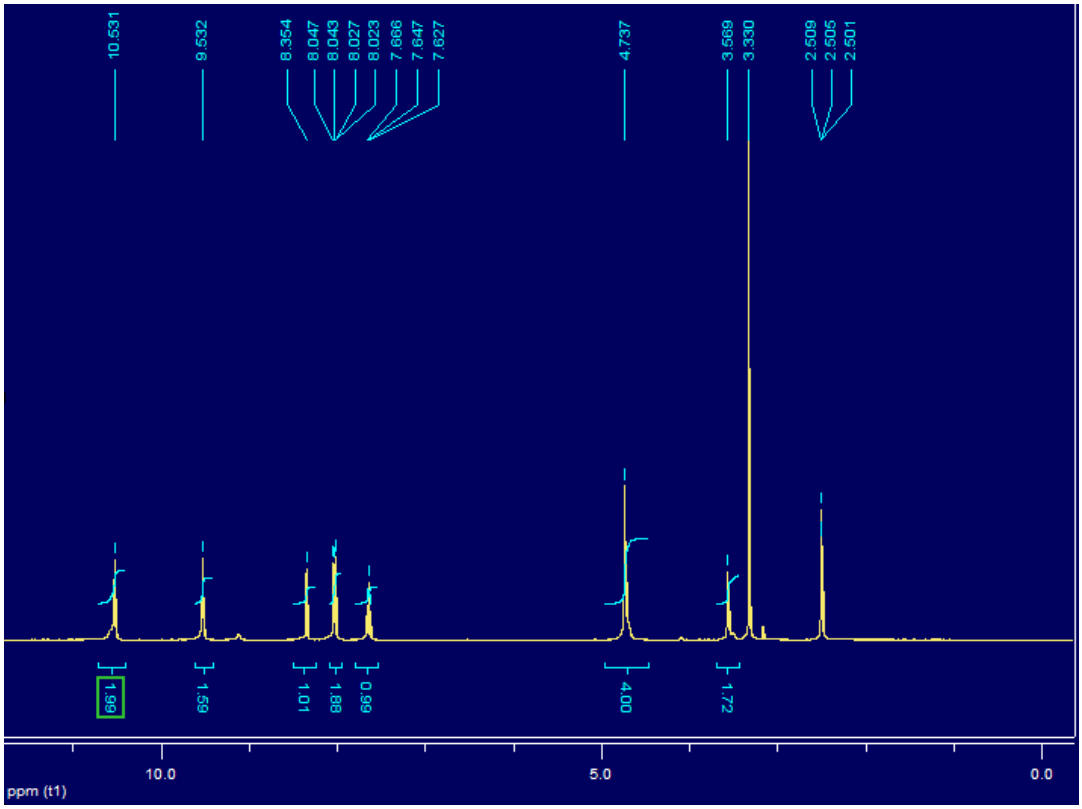


Figure S1. ^{1}H NMR spectrum of **3** (400 MHz, DMSO-d_6).

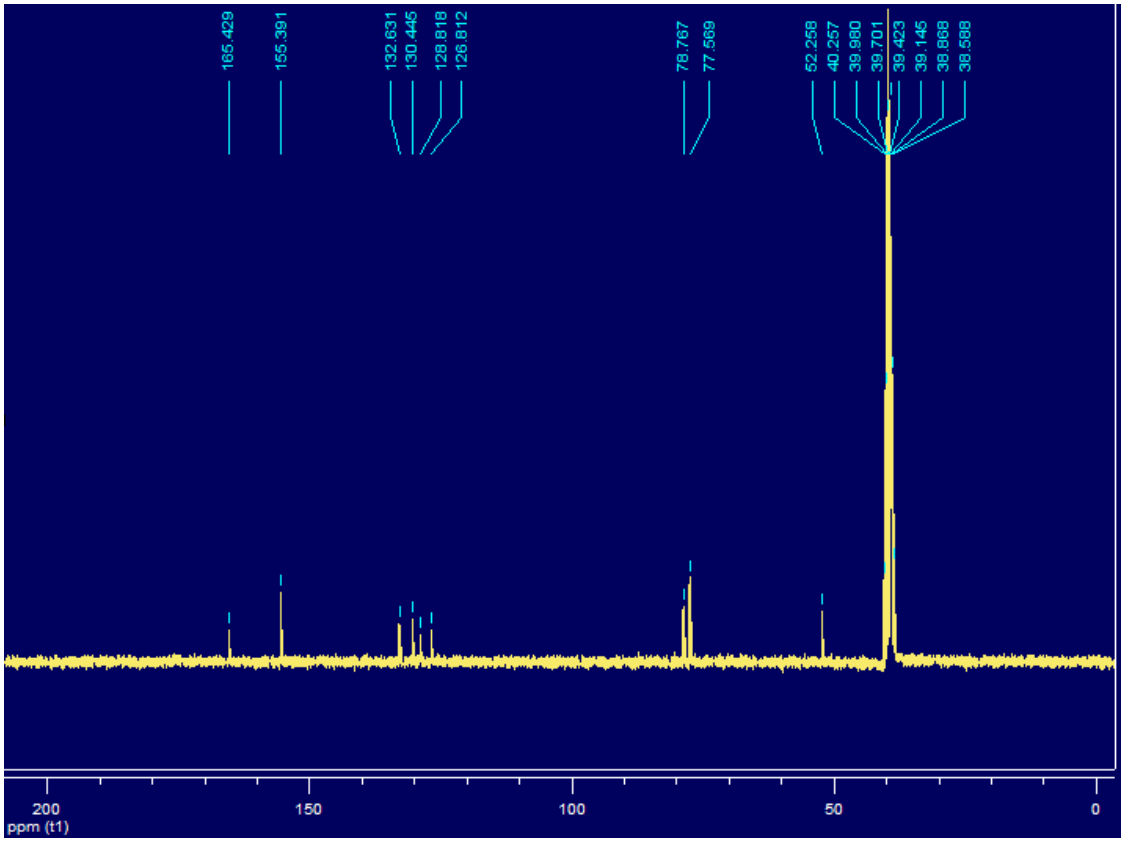
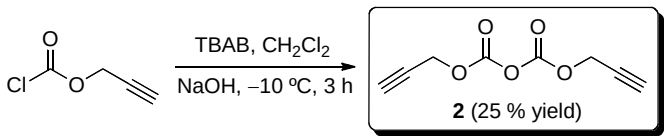


Figure S2. ^{13}C NMR spectrum of **3** (75 MHz, DMSO-d_6).

2. Synthesis, ^{1}H and ^{13}C NMR spectra of dipropargyl dicarbonate (2)



Compound **2** has been previously reported [1] although not NMR data are provided. Experimental procedure based on ref. 11 of the main paper: A solution of tetrabutylammonium bromide (580.3 mg, 1.80 mmol) in CH_2Cl_2 (10 mL) was added dropwise to 20% aqueous NaOH solution. The mixture was cooled to –10 °C and vigorously stirred. A solution of commercially available propargyl chloroformate (1.76 mL, 18.0 mmol) in CH_2Cl_2 (50 mL) was then added over a period of 20 min. The mixture was stirred at –10 °C for 3 h and neutralized with acetic acid. The organic layer was extracted twice with $NaHCO_3$ solution, washed with water and then dried over anhydrous Na_2SO_4. Evaporation of the solvent afforded product **2** (820 mg, 25% yield) as colorless oil: TLC R_f (CH_2Cl_2/MeOH 4:1) 0.58; ^{1}H NMR (300 MHz, $CDCl_3$) δ/ppm = 2.54 (t, J = 2.4 Hz, 2 H), 4.73 (d, J = 2.7 Hz, 4 H); ^{13}C NMR (75 MHz, $CDCl_3$) δ/ppm = 55.7, 76.0, 76.7, 154.0; FT-IR (ATR) ν_{max} (cm^{-1}) 3293, 1751.
Note: Compound **2** should be stored in the refrigerator to prevent decomposition.

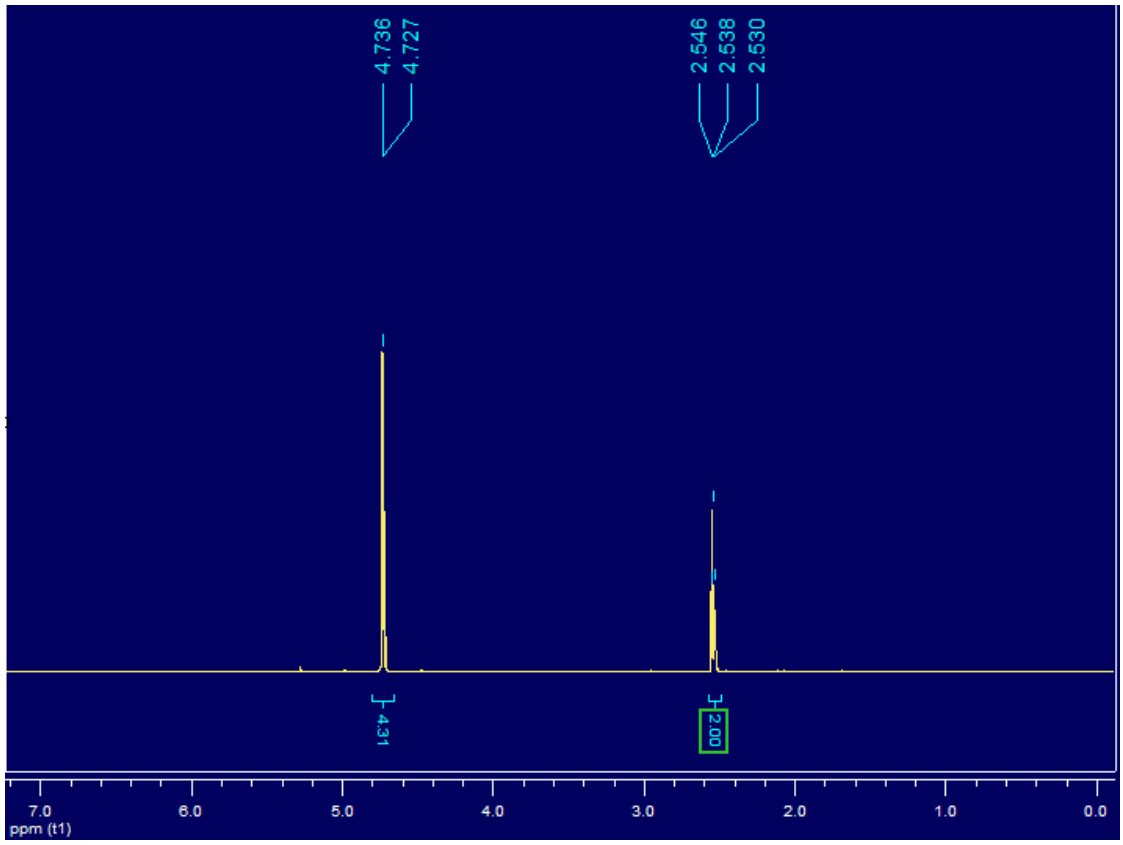


Figure S3. ^{1}H NMR spectrum of **2** (300 MHz, $CDCl_3$).

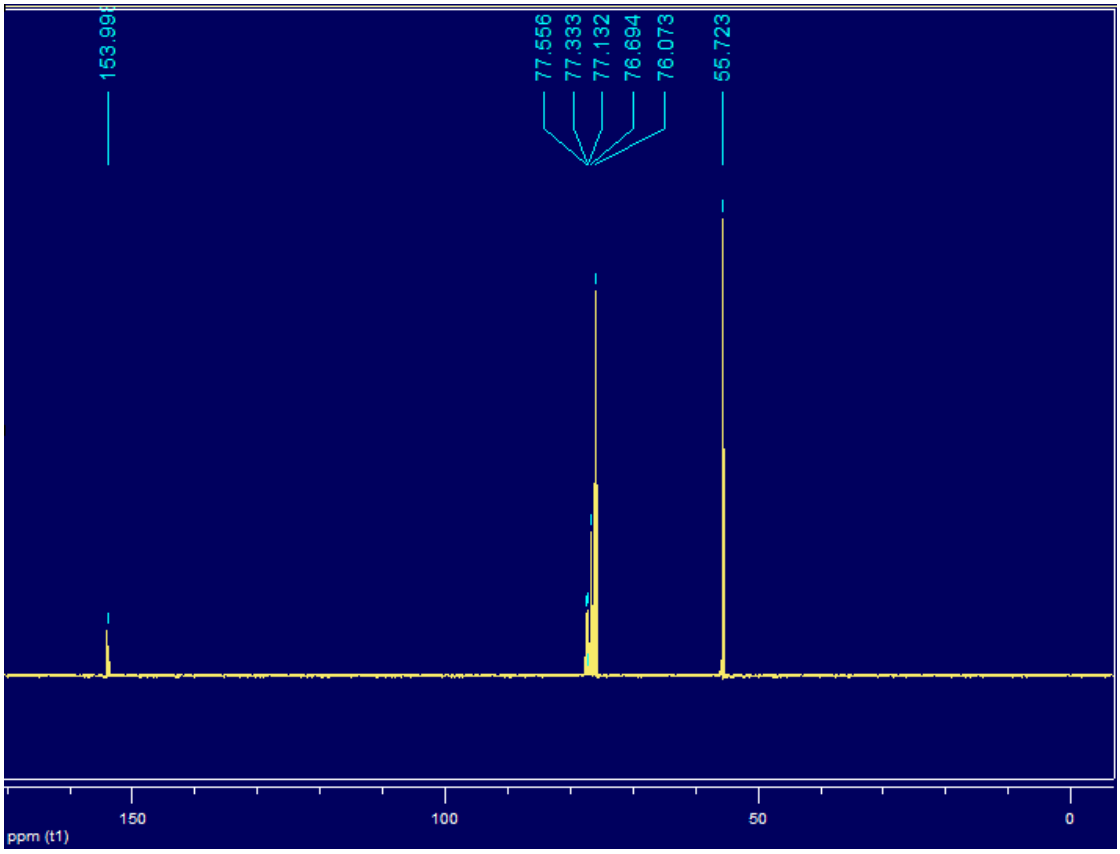


Figure S4. ^{13}C NMR spectrum of **2** (75 MHz, $CDCl_3$).

3. References

1. Shamshurin, A.A.; Krivoshchekova, O.E. A new acceptor in the preparation of pyrocarbonic esters. *Zhurnal Vsesoyuznogo khimicheskogo obshchestva im. D.I. Mendeleeva.* 1965, *10*, 594.