

Bromotrimethylsilane as a Selective Reagent for the Synthesis of Bromohydrins

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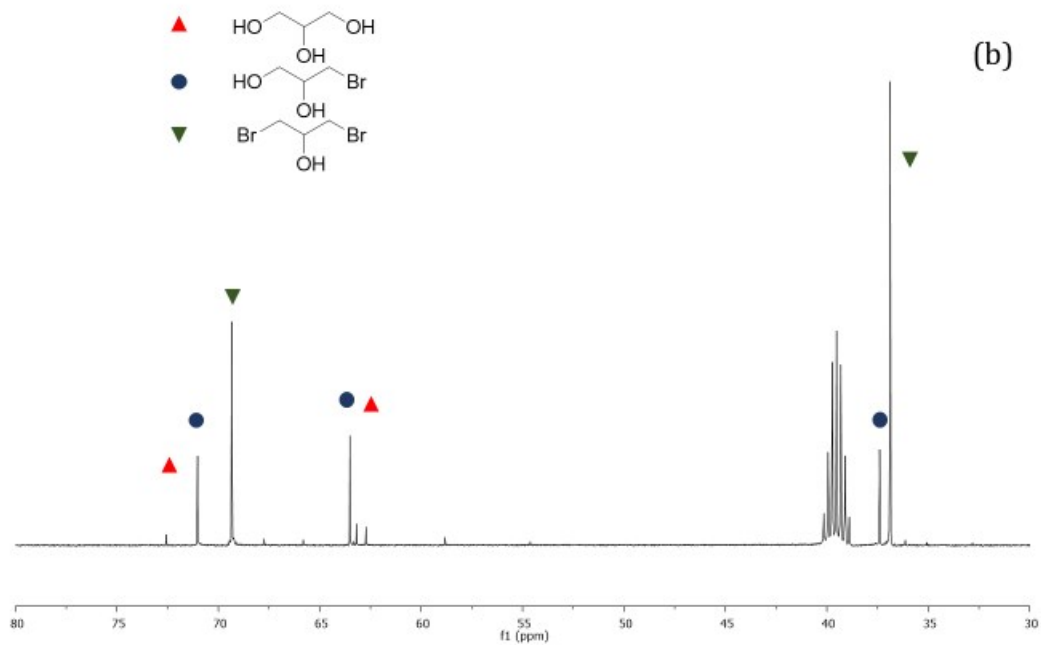
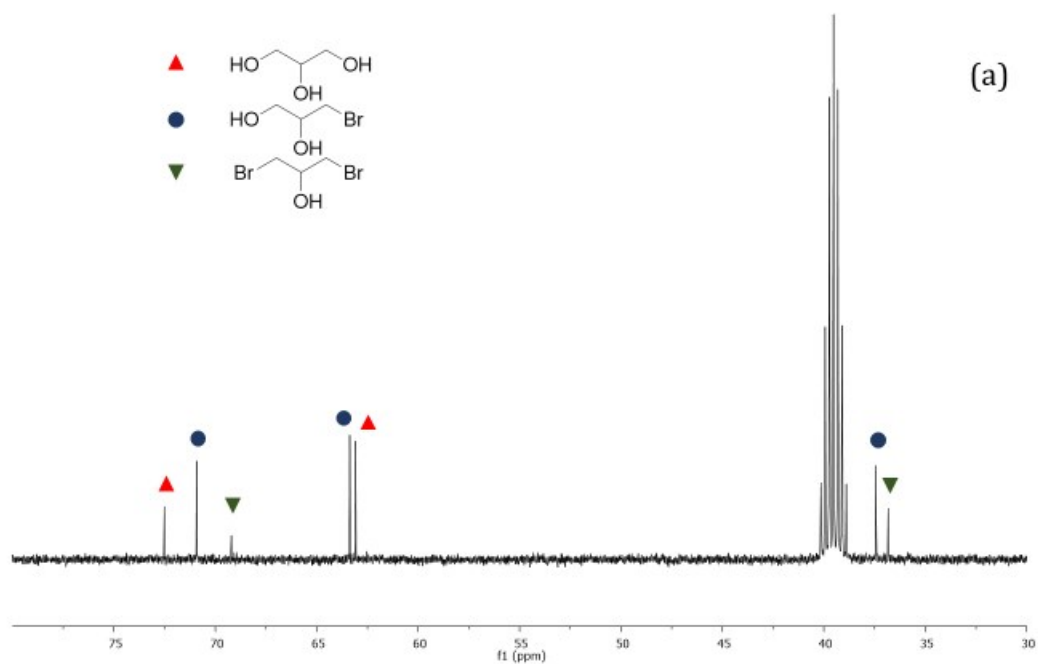
¹H and ¹³C NMR data of compounds **6**, **4**, and **8**

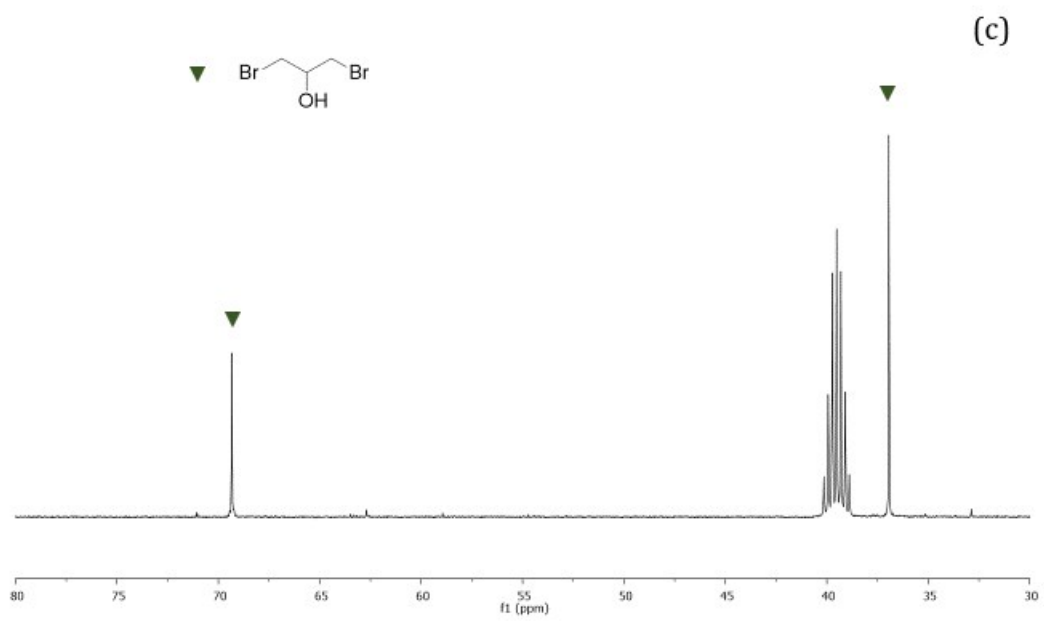
Methyl ricinoleate (**6**): ¹H-NMR (400 MHz, CDCl₃) δ (ppm) 5.54 (m, 1H; H-9), 5.39 (m, 1H; H-10), 3.65 (s, 3H; OCH₃), 3.60 (m, 1H; H-12), 2.29 (t, 7.5 Hz, 2H; H-2), 2.20 (m, 2H; H-11), 2.03 (m, 2H; H-8), 1.60 (m, 2H; H-3), 1.45 (m, 2H; H-13), 1.39-1.21 (m, 16H; CH₂ chain), 0.87 (m, 3H; H-18).

1-MBH (**4**): ¹H-NMR (CDCl₃) δ (ppm): 4.03-3.86 (m, 1H), 3.84-3.64 (m, 2H), 3.57-3.43 (m, 2H), 2.09 (br s, 2H); ¹³C NMR (CDCl₃) δ (ppm): 71.3 (d), 64.2 (t), 35.2 (t).

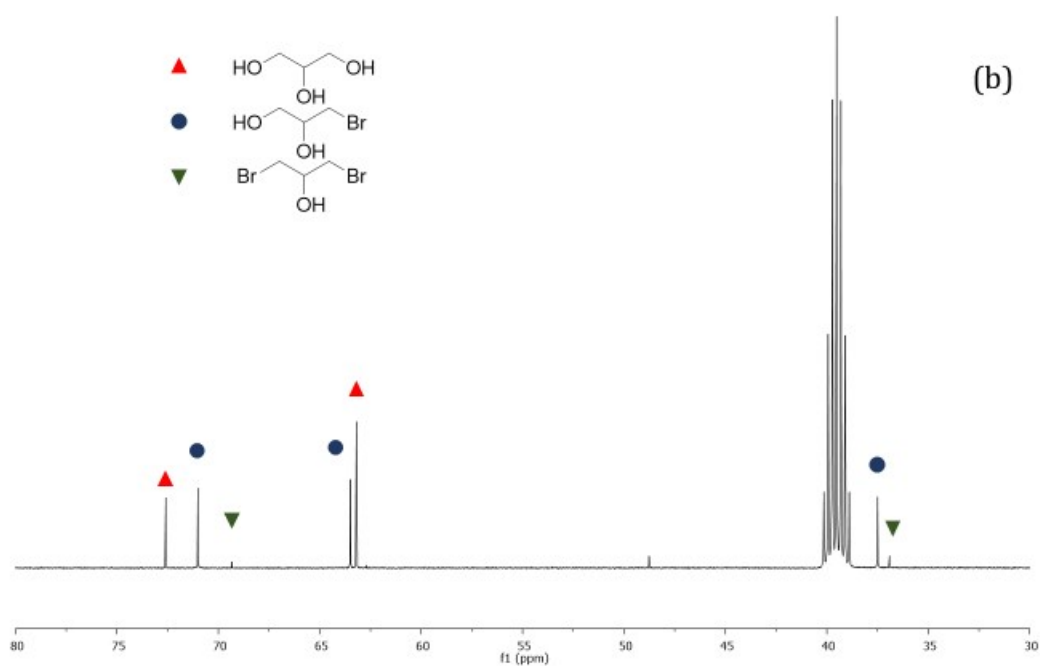
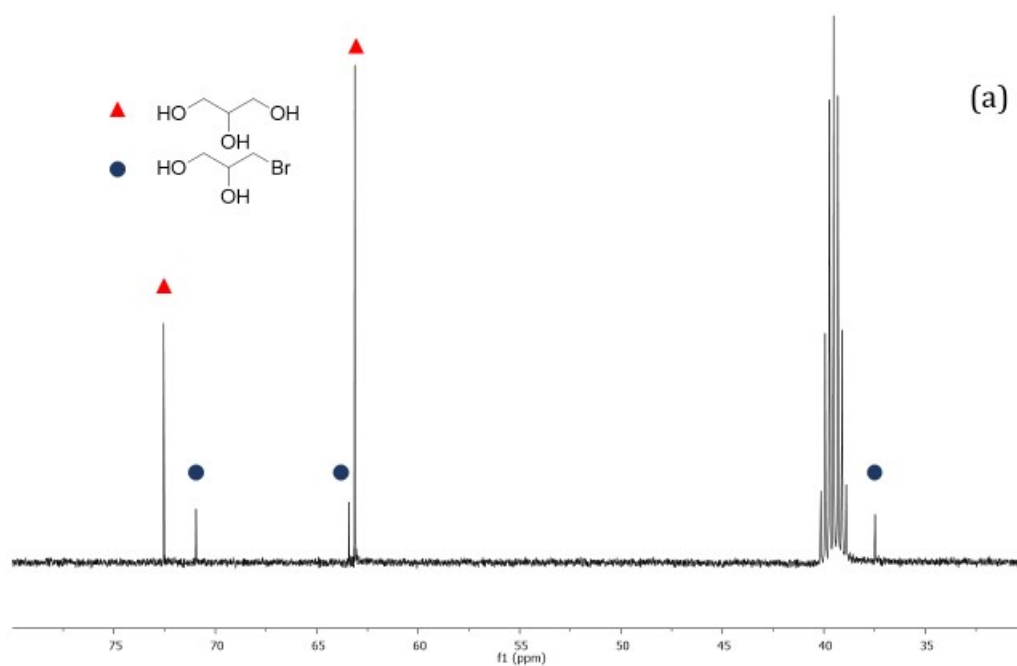
1,3-DBH (**8**): ¹H NMR (CDCl₃) δ (ppm): 4.02 (quintet, J = 5.3 Hz, 1H), 3.63-3.56 (m, 4H), 2.22 (s, 1H); ¹³C-NMR (CDCl₃) δ (ppm): 69.5 (d), 35.0 (t).

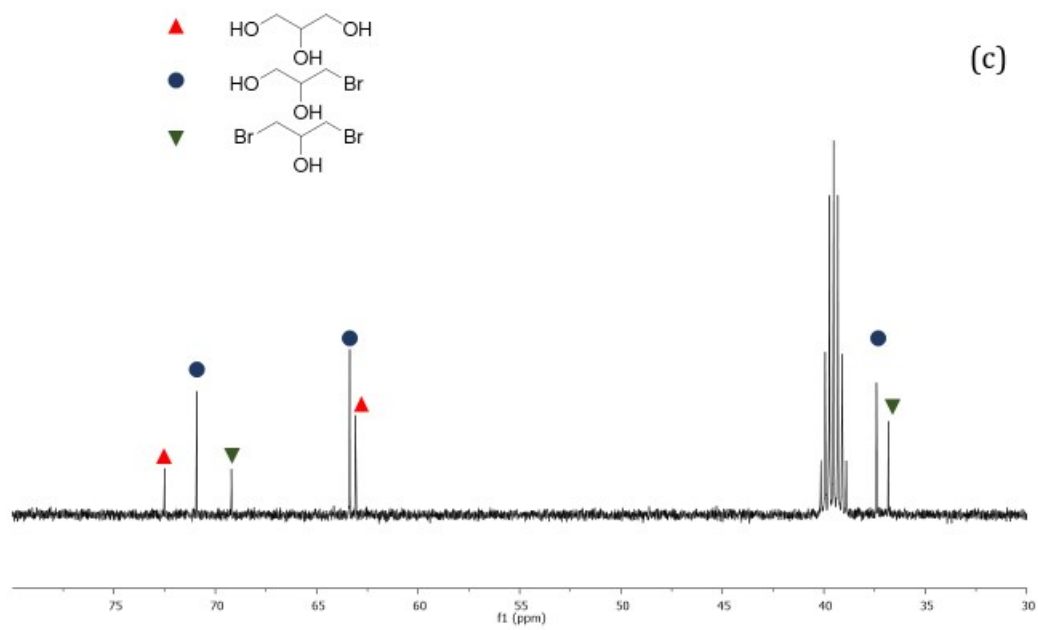
^{13}C NMR spectra ($\text{DMSO-}d_6$) of reaction crudes obtained by heating glycerol (**3**) and TMSBr at $60\text{ }^\circ\text{C}$: (a) for 12 hours, without AcOH; (b) for 6 hours with 3% of AcOH; (c) for 9 hours with 3% of AcOH.



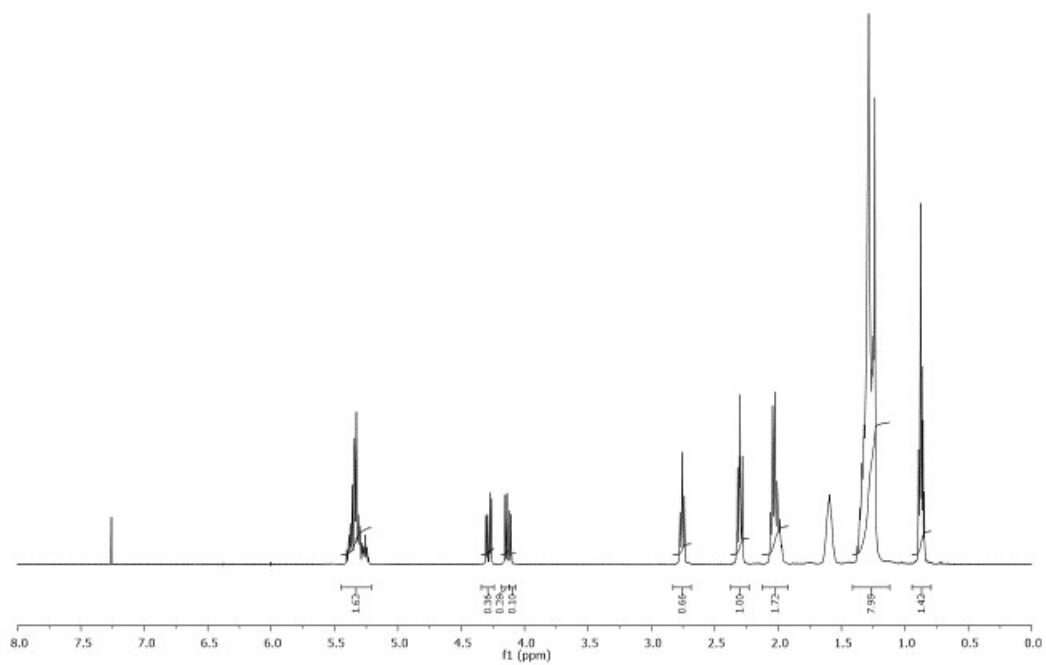


^{13}C NMR spectra ($\text{DMSO-}d_6$) of reaction crudes obtained by treatment of glycerol (**3**) with TMSBr at $20\text{ }^\circ\text{C}$: (a) for 24 hours, without AcOH ; (b) for 24 hours with 3% of AcOH ; (c) for 48 hours with 3% of AcOH .

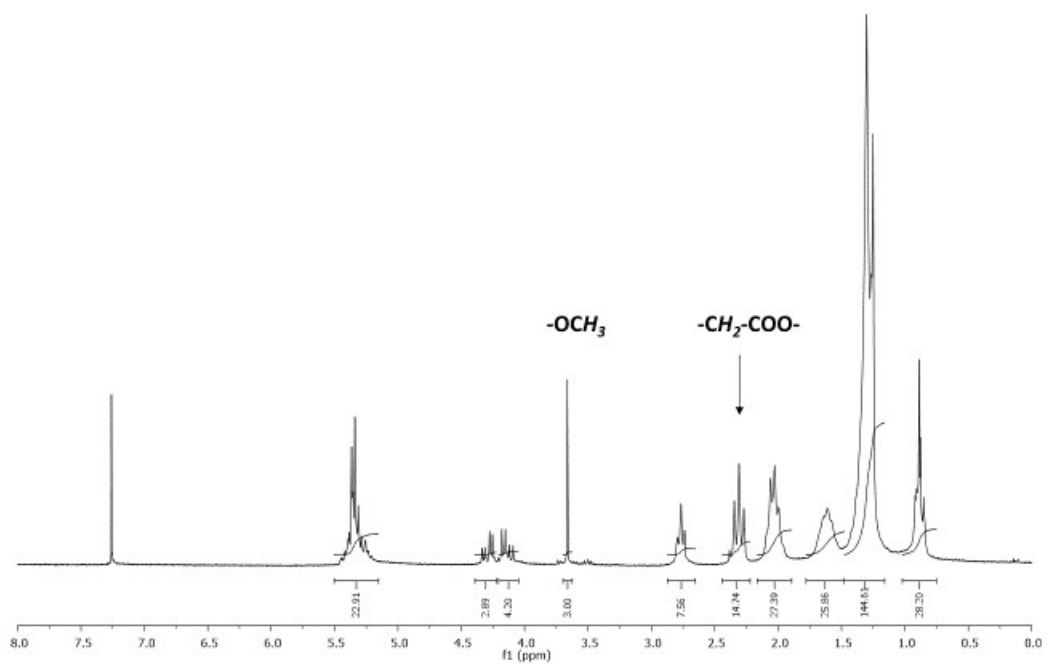




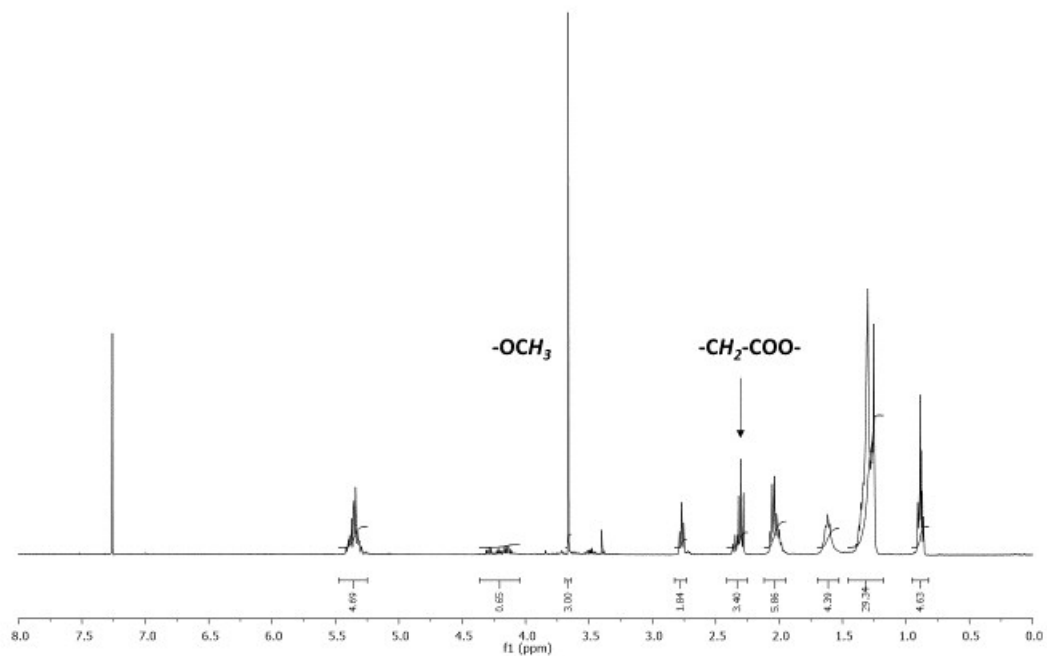
^1H NMR spectrum (CDCl_3) of Sunflower Oil (**1**)



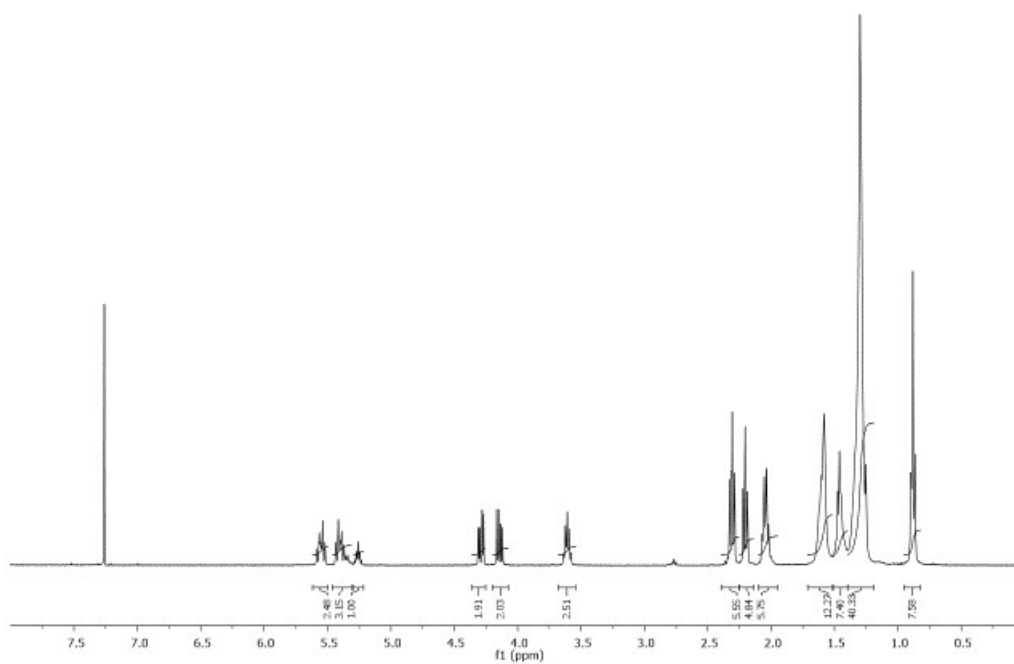
^1H NMR spectrum (CDCl_3) of the reaction mixture of Sunflower oil (**1**) heated at $60\text{ }^\circ\text{C}$ for 8 hours



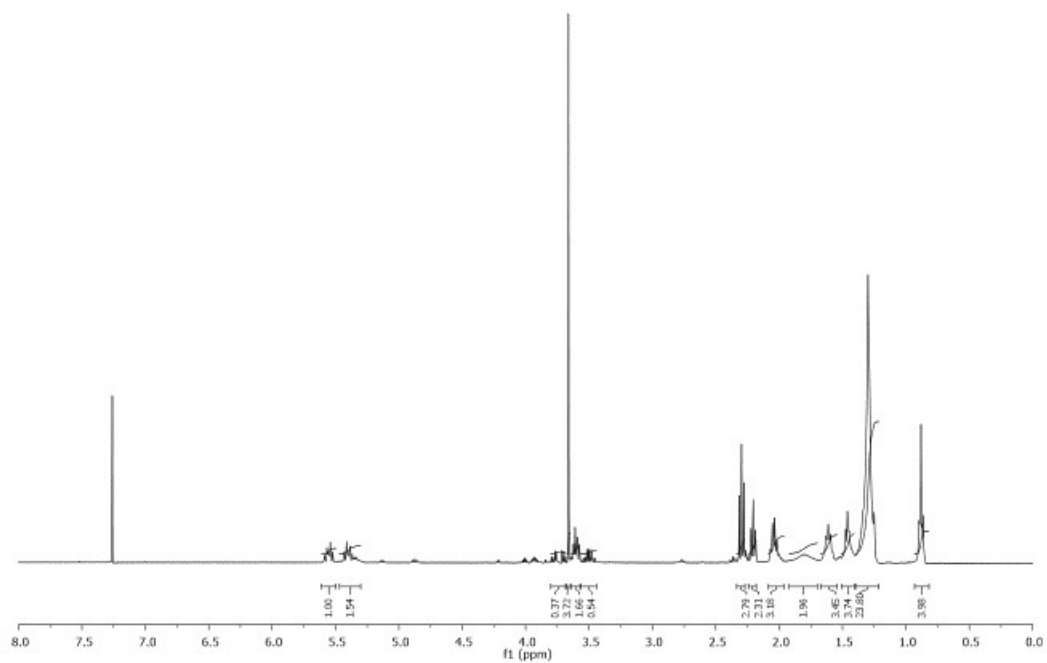
^1H NMR spectrum (CDCl_3) of the reaction mixture of Sunflower oil (**1**) heated at $100\text{ }^\circ\text{C}$ for 72 hours



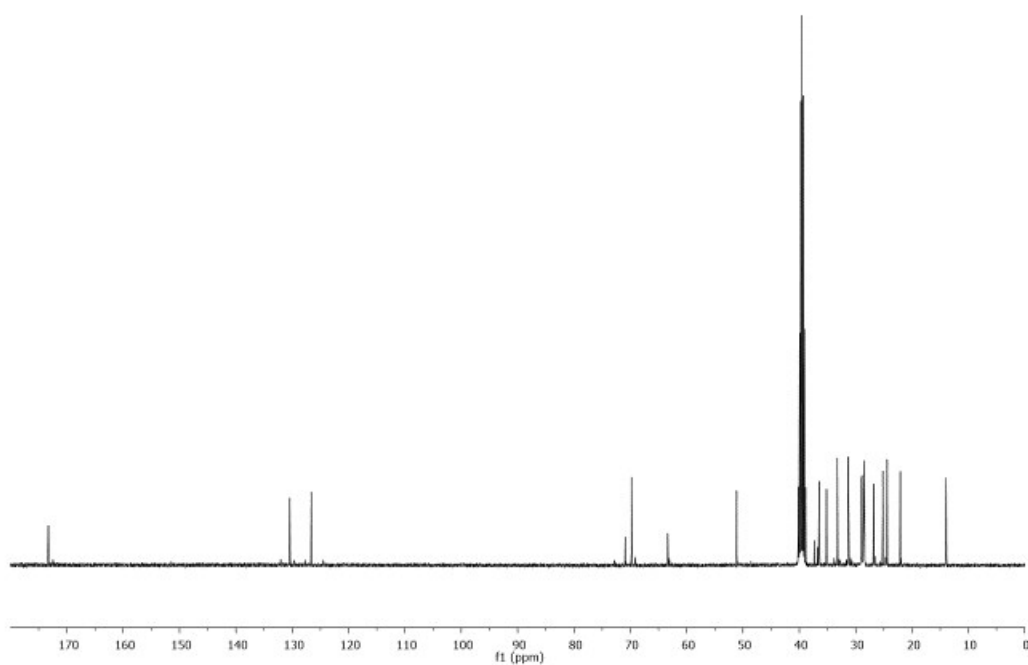
^1H NMR spectrum (CDCl_3) of Castor Oil (**2**)



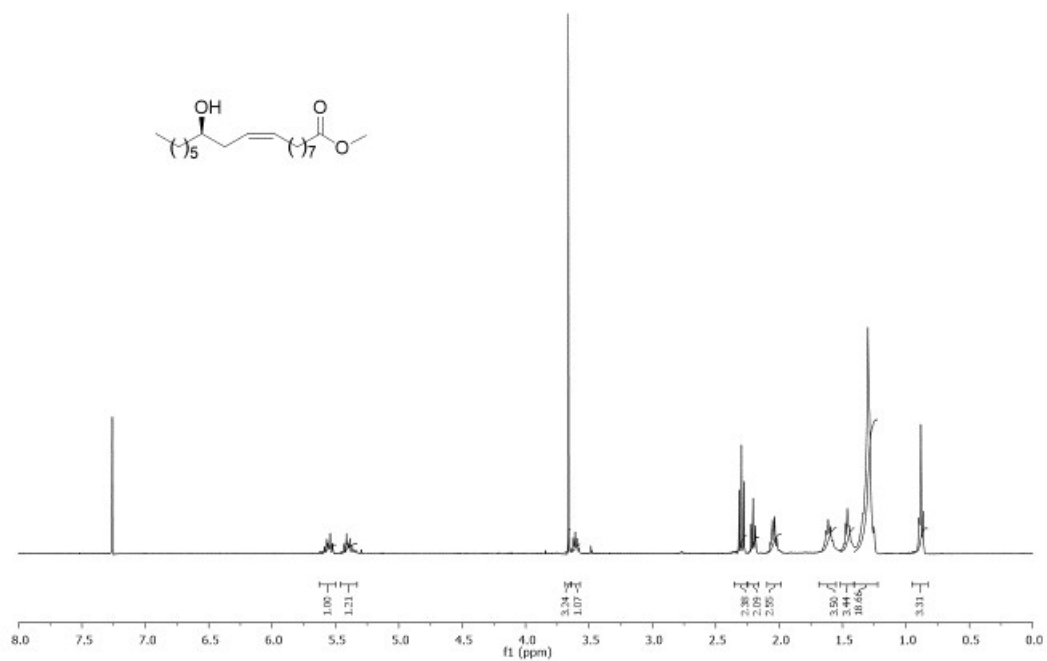
^1H NMR spectrum (CDCl_3) of the reaction mixture of Castor Oil (**2**) heated at $60\text{ }^\circ\text{C}$ for 12+6 hours



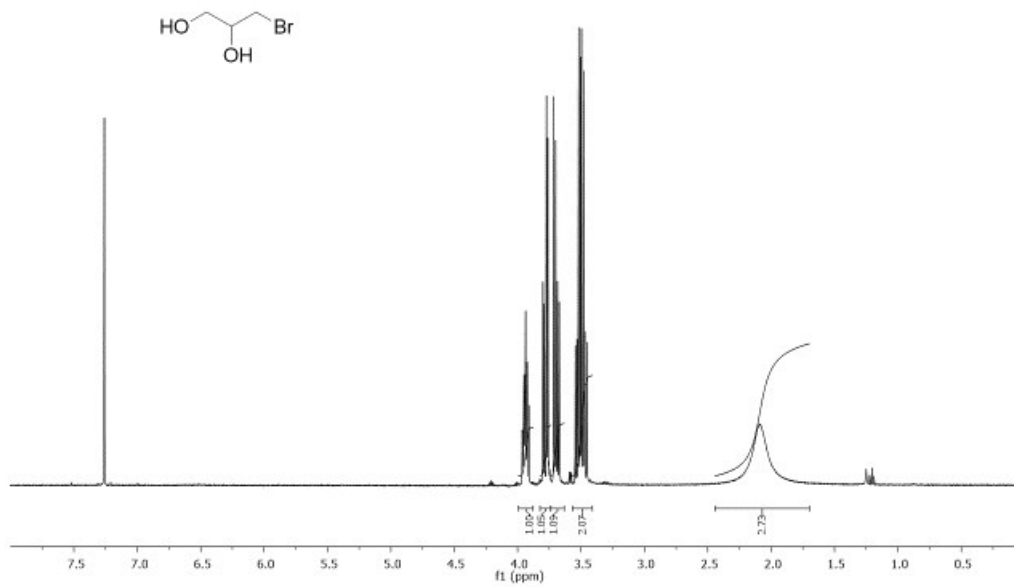
^{13}C NMR spectrum ($\text{DMSO}-d_6$) of the reaction mixture of Castor Oil (**2**) heated at $60\text{ }^\circ\text{C}$ for 12+6 hours



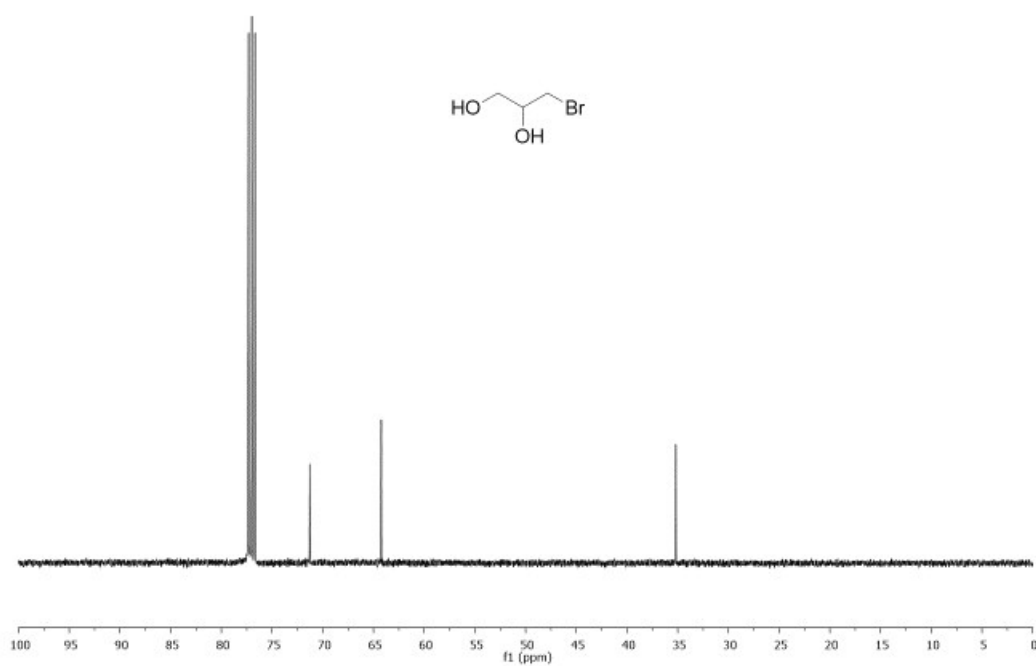
^1H NMR spectrum (CDCl_3) of methyl ricinoleate (**6**)



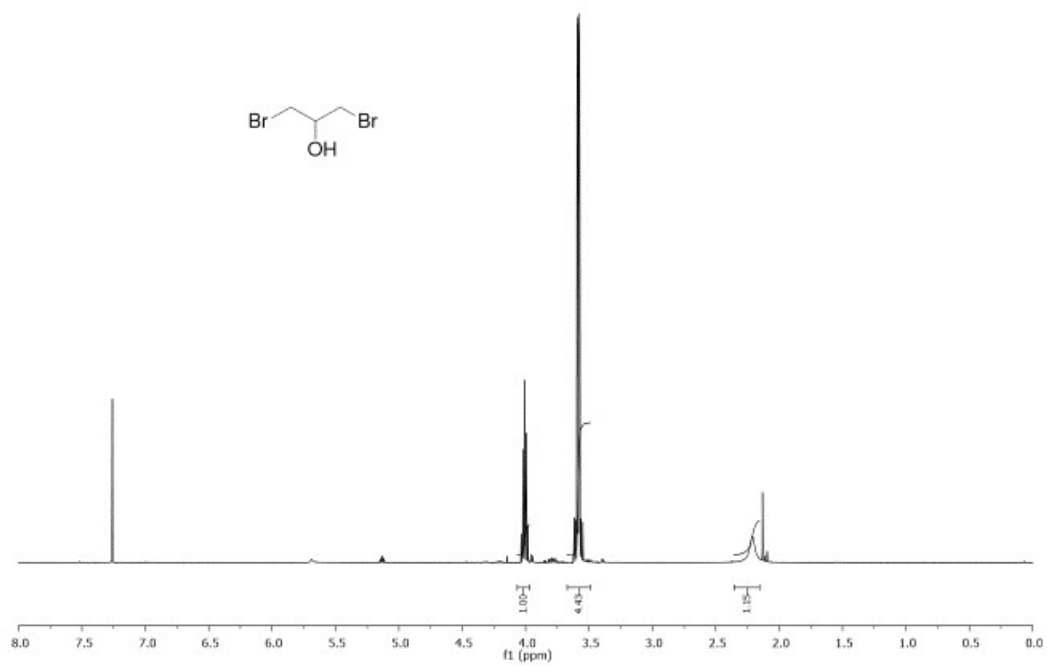
^1H NMR spectrum (CDCl_3) of 1-MBH (**4**)



^{13}C NMR spectrum (CDCl_3) of 1-MBH (**4**)



^1H NMR spectrum (CDCl_3) of 1,3-DBH (**8**)



^{13}C NMR spectrum (CDCl_3) of 1,3-DBH (**8**)

