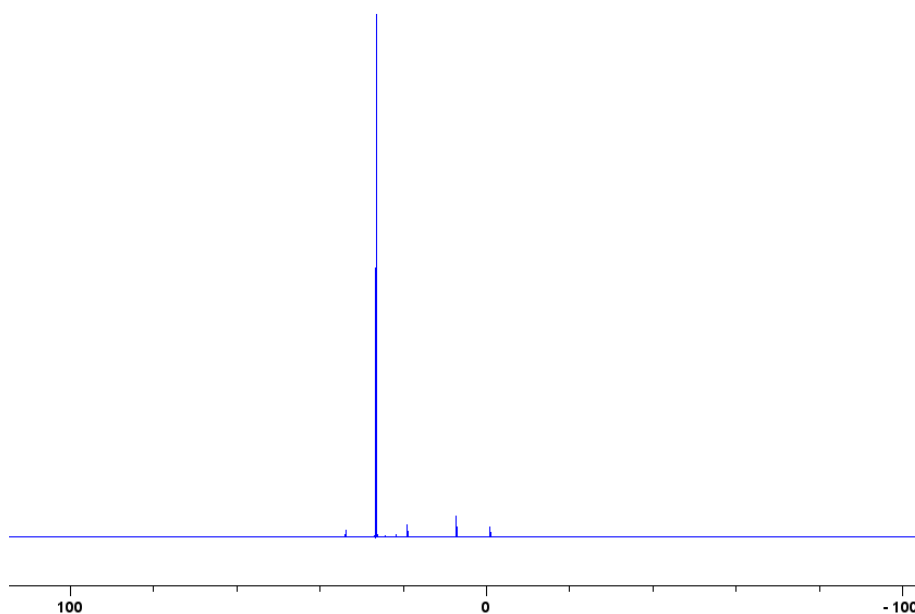
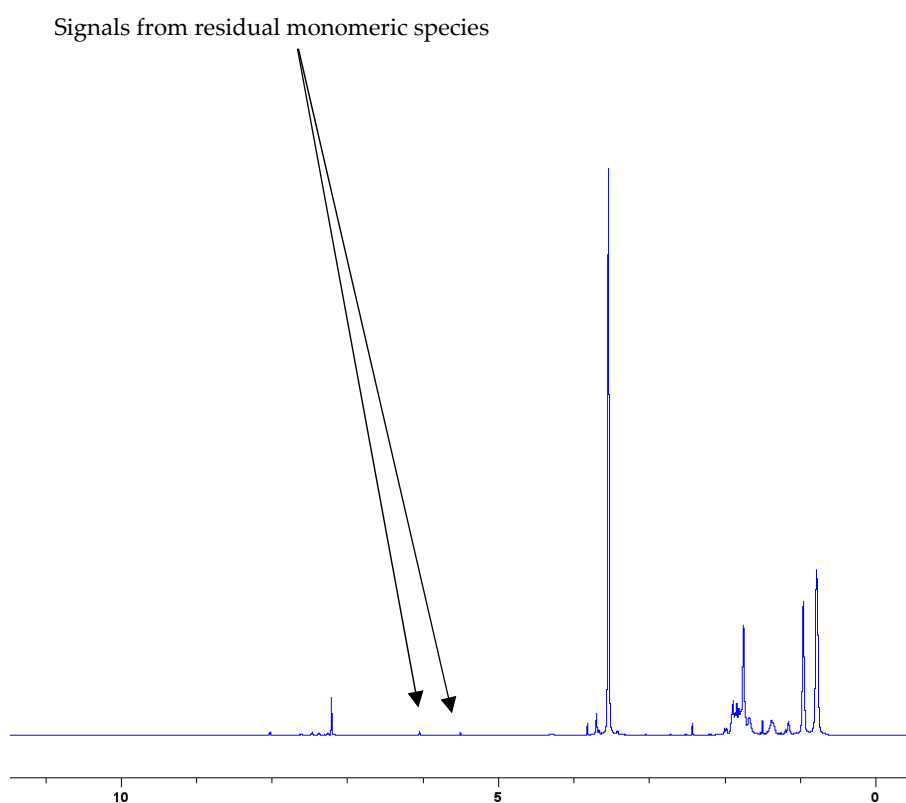


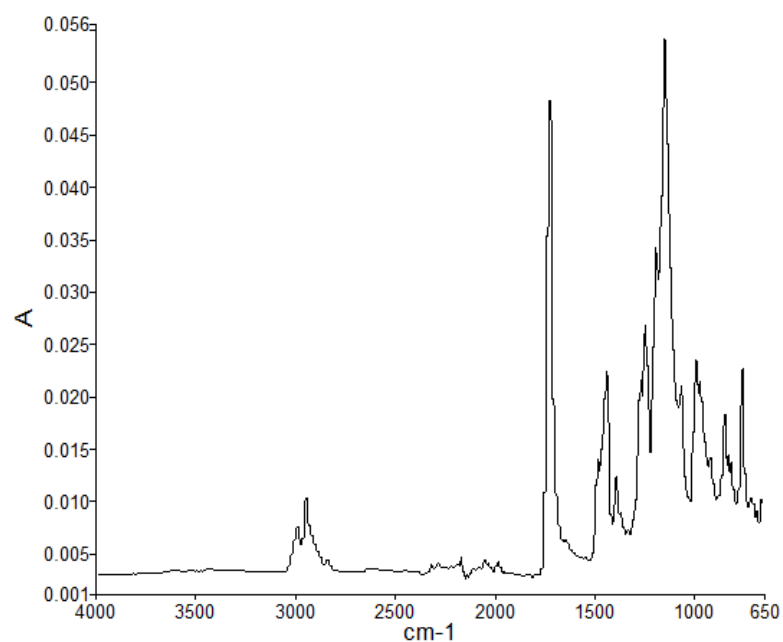
**Figure S1.** 600 MHz  $^1\text{H}$  NMR spectrum of diethylbenzylphosphonate ( $J_{\text{HP}} = 21.9$  Hz).



**Figure S2.** 600 MHz  $^{31}\text{P}$  NMR spectrum (proton decoupled) of diethylbenzylphosphonate ( $\delta = 26.4$  ppm).



**Figure S3.** 600 MHz  $^1\text{H}$  NMR spectrum of polymethyl methacrylate.



**Figure S4.** FT-IR spectrum of polymethyl methacrylate (neat: total attenuated reflectance mode)-note here the signals expected from  $\text{C}=\text{C}$ - stretching ( $\sim 1640\text{ cm}^{-1}$ ) from the vinyl function of unspent monomeric species.