

Supporting Information for

**Synthesis and characterization of poly(ethylene terephthalate-
co-1,4-cyclohexanedimethylene terephthalate)- *block*-
poly(tetramethylene oxide) copolymers**

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Characterization method.

The ^1H - ^{13}C gHSQC (gradient enhanced heteronuclear single quantum coherence) 2D-NMR experiment was performed with a standard Varian pulse sequence with 90° pulse widths of 9.1 and 8.6 μs for ^1H and ^{13}C , respectively. The ^1H dimension had a spectral width of 9.6 kHz, and the ^{13}C dimension had a spectral width of 25.6 kHz, acquisition time of 0.15 s, 1.0 s relaxation delay; 16 transients were averaged for each of 256 increments using the States method of phase sensitive detection in f_1 . Delays were optimized depending on the coupling interests. The data were zero-filled to 4096×4096 and weighted with sine bell and shifted sine bell functions prior to Fourier transformation.

The ^1H - ^1H gCOSY (gradient correlation spectroscopy) 2D NMR experiments were performed with the standard Agilent sequence. This was done with a 9.6 kHz spectral width, 0.15 s acquisition time, 1 s relaxation delay, and 9.1 μs 90° pulse width; a total of 8 transients were averaged for each 256 increments using the States method of phase sensitive detection in f_1 . Processing was done with shifted sine bell weighting functions in both dimensions and zero-filling to a 1024×1024 data matrix prior to Fourier transformation.

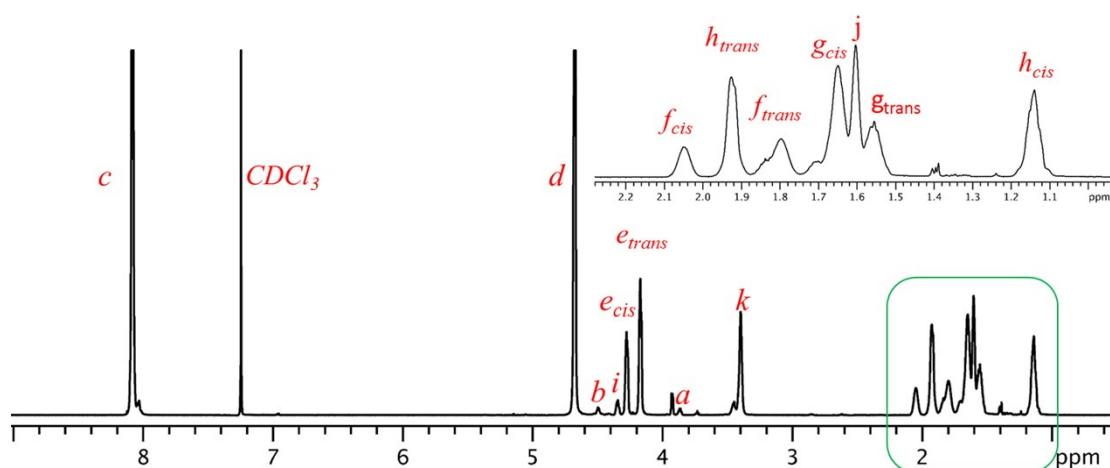


Figure S1. ^1H quantitative NMR spectra of PEE 90/10 sample. Solvent: CDCl_3 .

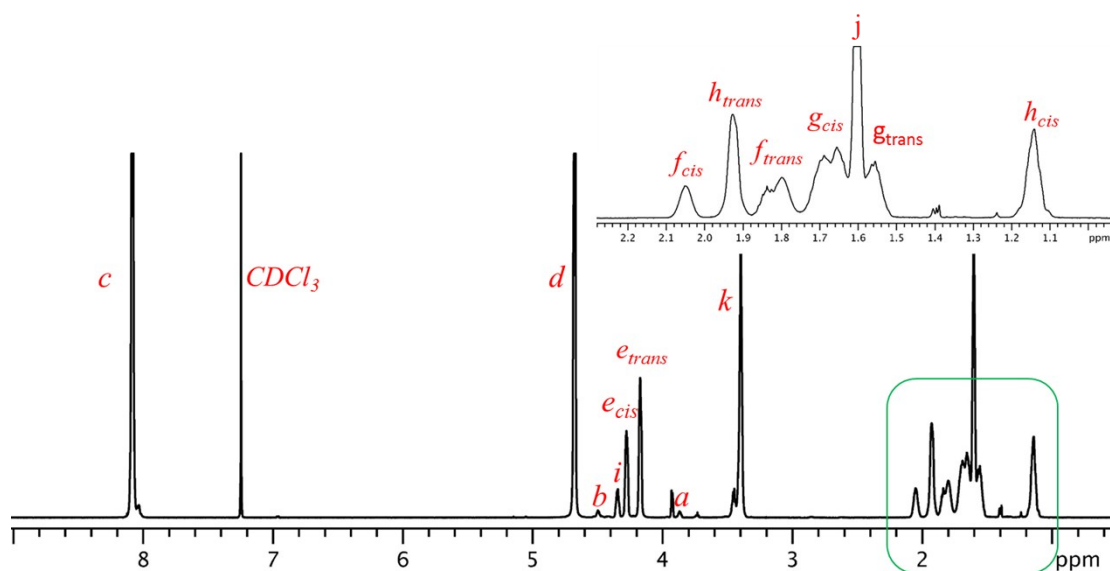


Figure S2. ^1H quantitative NMR spectra of PEE 80/20 sample. Solvent: CDCl_3 .

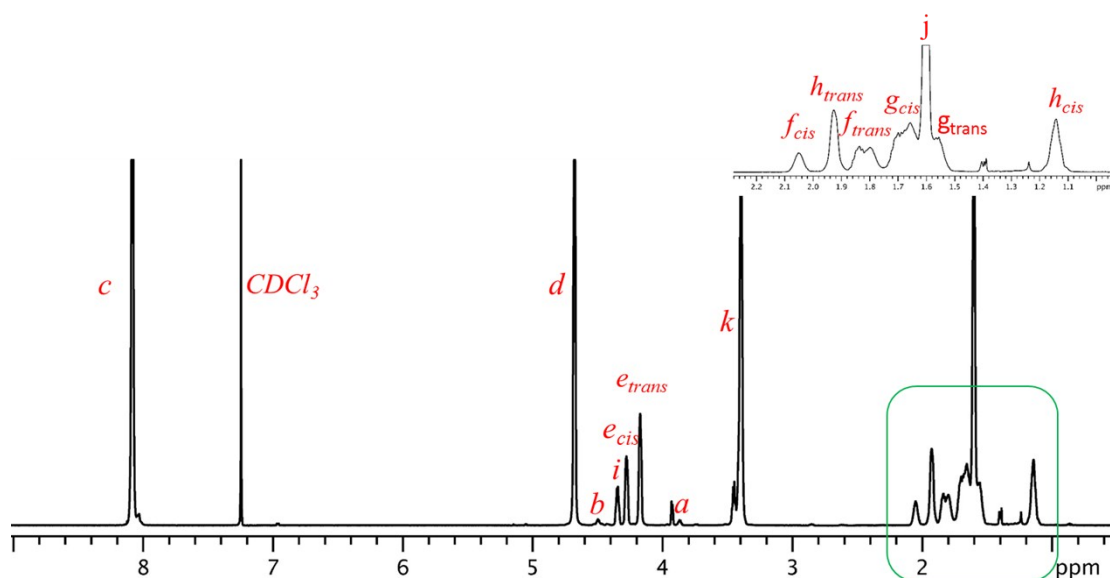


Figure S3. ^1H quantitative NMR spectra of PEE 70/30 sample. Solvent: CDCl_3 .

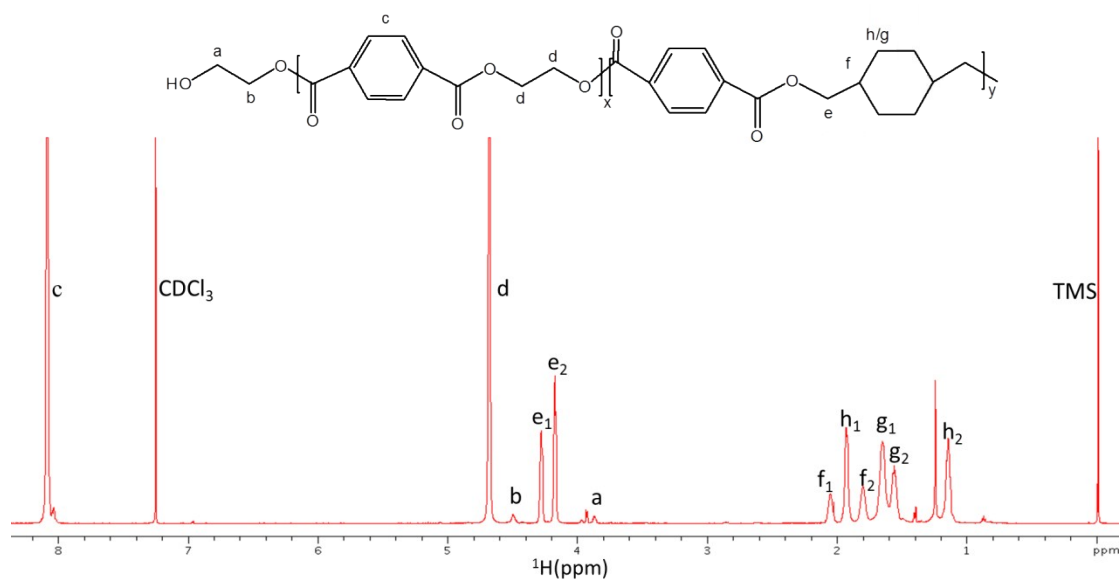


Figure S4. ^1H quantitative NMR spectra of PETG sample. Solvent: CDCl_3 .

