

Supporting information

Free radical emulsion polymerization of ethylene

*G. Billuart, E. Bourgeat-Lami, M. Lansalot, V. Monteil**

Université de Lyon, Univ. Lyon 1, CPE Lyon, CNRS, UMR 5265, Laboratoire de Chimie,
Catalyse, Polymères et Procédés (C2P2), LCPP group, 43, Bd. du 11 Novembre 1918, F-69616
Villeurbanne, France

*vincent.monteil@univ-lyon1.fr

Branching degree measurement by ^{13}C NMR analysis

Table S1. Signal assignments from Galland et al. (*Macromolecules* **1999**, 32, 1620–1625)

Signal (ppm)	Assignment
37.47	Backbone methylene adjacent to a methyl branching
26.51	Methylene of an ethyl branching
20.30	Last methylene of a propyl branching*
23.37	Second methylene of a butyl branching*
32.65	Third methylene of an amyl branching*
32.16	Third methylene of a long branching (>5 carbons)*
30.00	PE methylene backbone

*Counting from the backbone

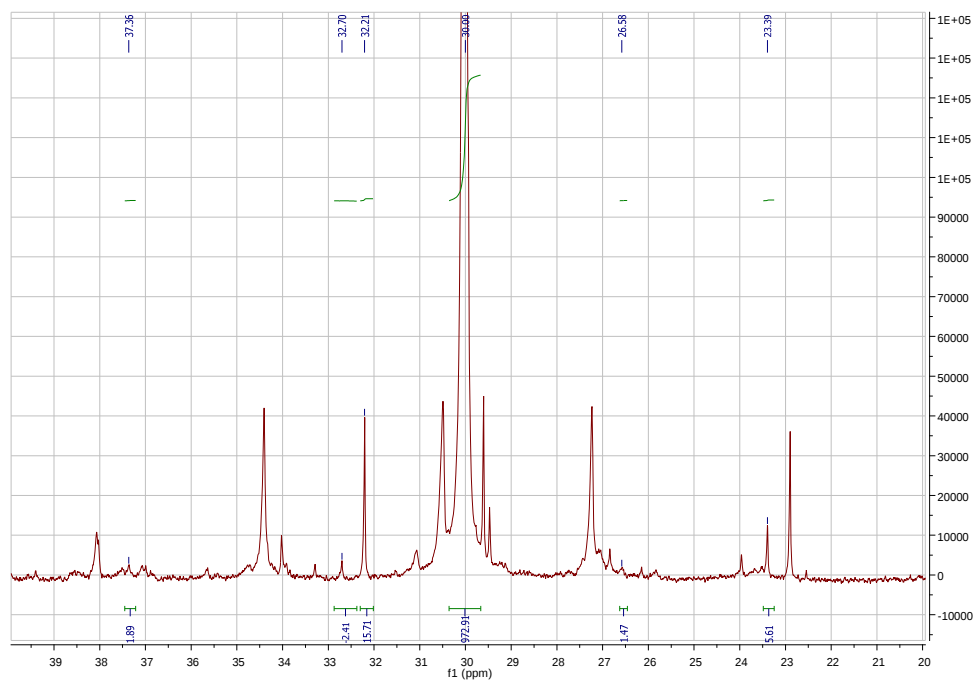


Figure S1. ^{13}C NMR spectrum of the polymer obtained from run 23 in TCE/ C_6D_6 at 90 °C.

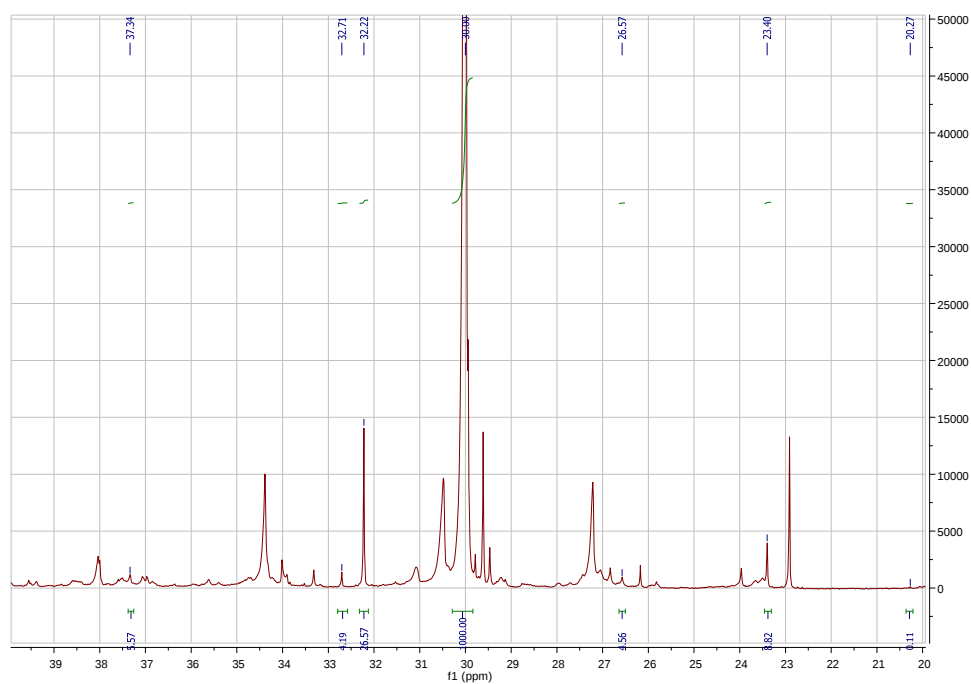


Figure S2. ^{13}C NMR spectrum of the polymer obtained from run 2 in TCE/ C_6D_6 at 90 °C.

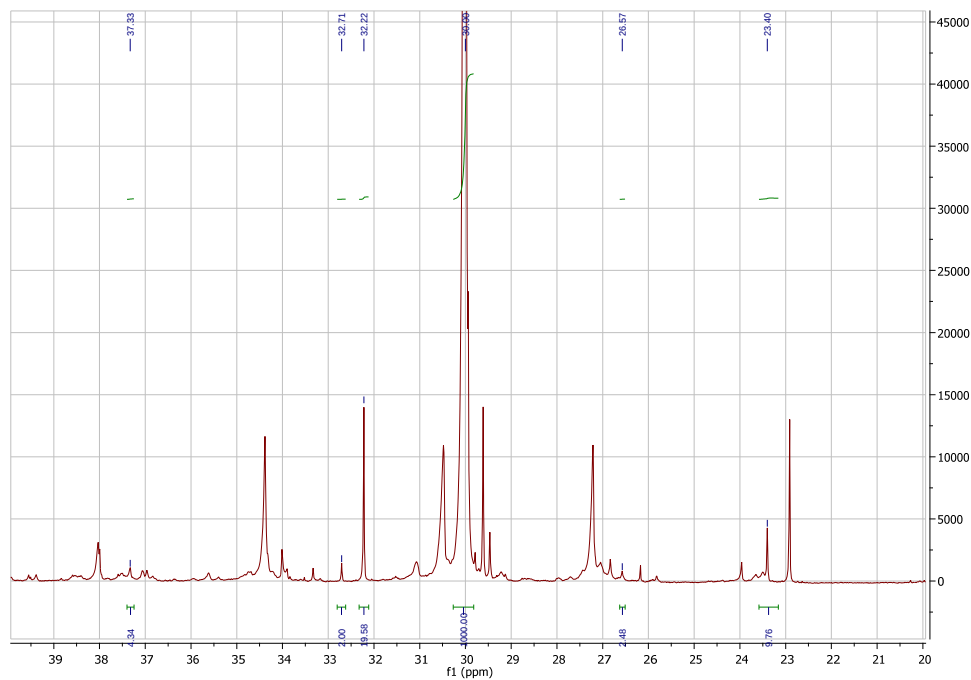


Figure S3. ^{13}C NMR spectrum of the polymer obtained from run 24 in TCE/ C_6D_6 at 90 °C.

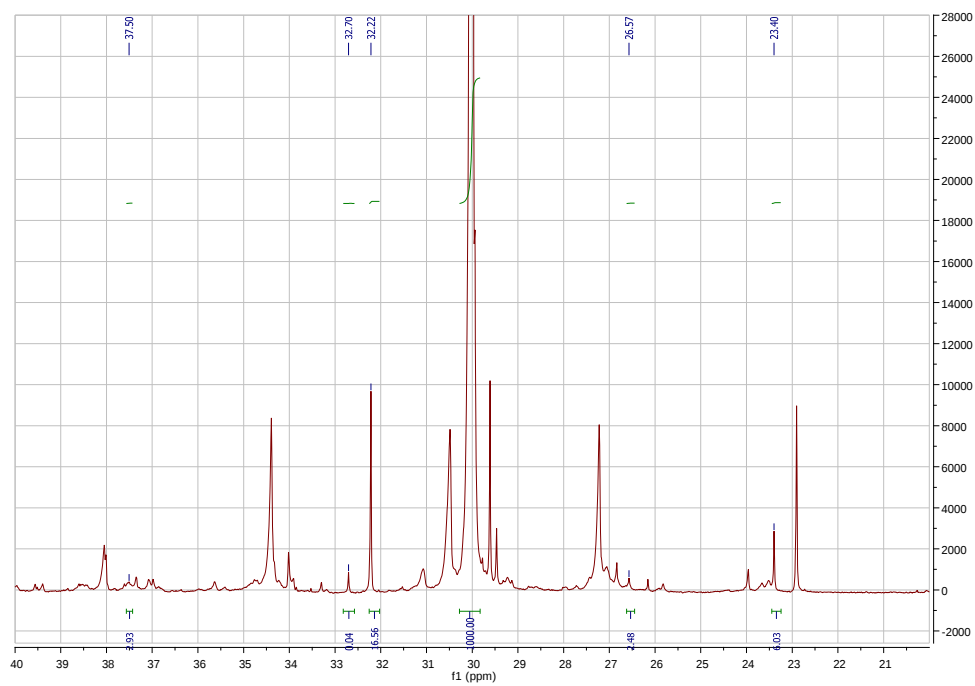


Figure S4. ¹³C NMR spectrum of the polymer obtained from run 25 in TCE/C₆D₆ at 90 °C.