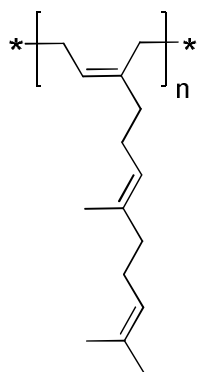


Sample Name:

POLYFARNESENE, rich in 1,4-addition

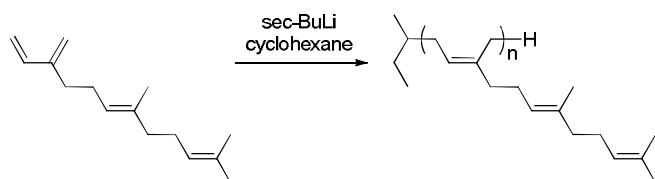
Sample # **P18569-Farne**



$M_n \times 10^3$ (g/mol)	M_w/M_n
12.5	1.45

Synthesis:

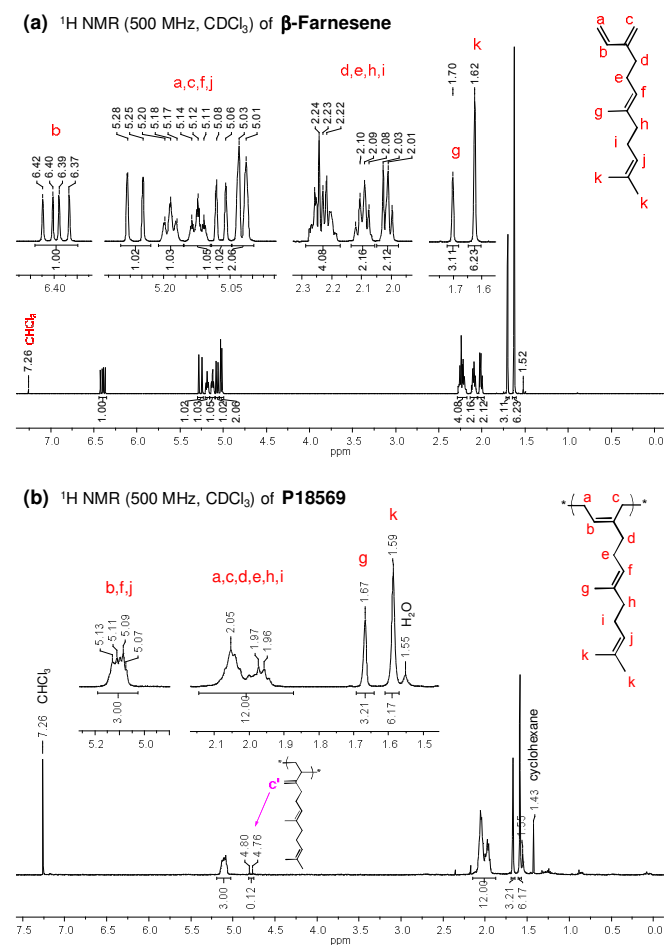
1,4-Polyfarnesene was synthesized by anionic living polymerization of β -farnesene in cyclohexane using *sec*-BuLi as an initiator.



Characterization:

The absolute molecular weight and polydispersity index (PDI) were determined by size exclusion chromatography (SEC) using light scattering (LS) detector. SEC analysis was performed on a Varian ProStar liquid chromatograph equipped with UV-vis, RI and LS triple detector from Viscotec, three SEC columns from Supelco (G6000-4000-2000 HXL), and using THF as an eluent.

^1H NMR spectra: (a) β -farnesene, (b) polyfarnesene.

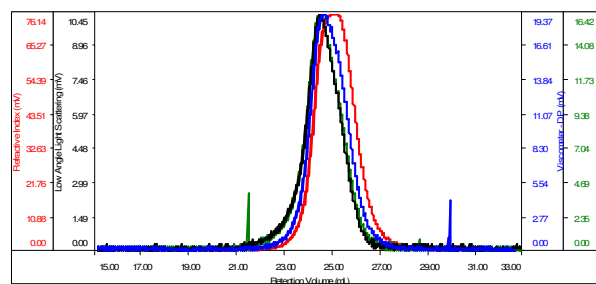


1,4-Polyfarnesene contains $\leq 6\%$ of 1,2-polyfarnesene.

SEC elugram of polyfarnesene.

Sample ID: P18569-Farnesene

Concentration (mg/mL)	2.8976
Sample dn/dc (mL/g)	0.1270
Method File	PS80K-March13-2014-0000.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	M_n	M_w	M_p	M_w/M_n	IV
P18569-Fam_01.vdt	12,730	18,336	15,165	1.440	0.2399