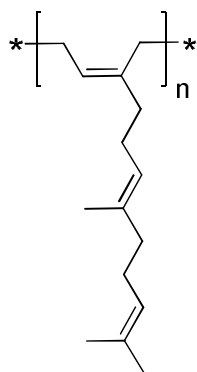


Sample Name:

POLYFARNESENE, rich in 1,4-addition

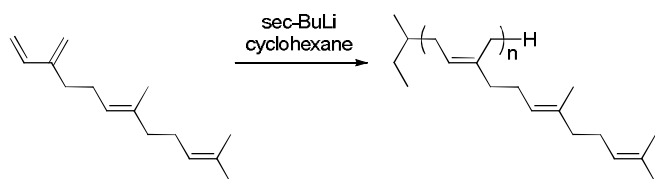
Sample # **P18588-Farne**



$M_n \times 10^3$ (g/mol)	M_w/M_n
7.0	1.3

Synthesis:

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

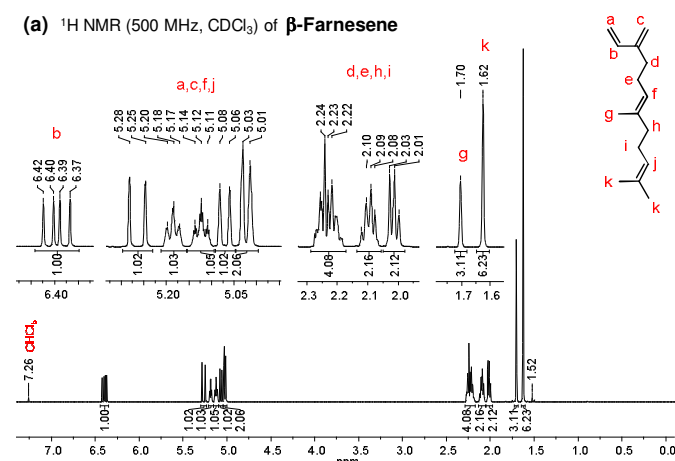


Characterization:

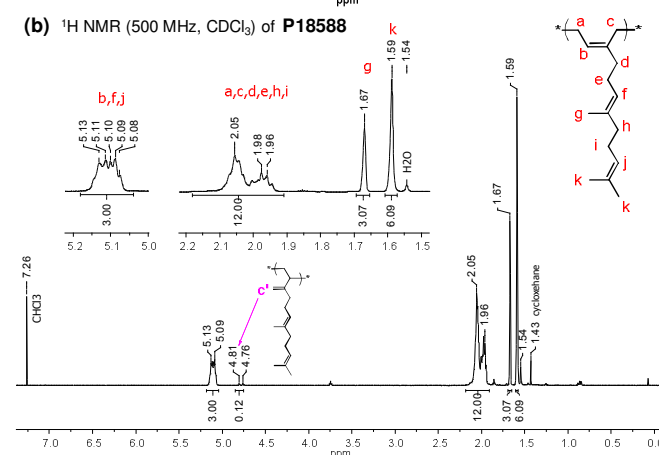
The absolute molecular weight and polydispersity index (PDI) were determined by size exclusion chromatography (SEC) using light scattering (LS) detector. SEC analysis was performed on a Varian ProStar liquid chromatograph equipped with UV-vis, RI and LS triple detector from Viscotec, three SEC columns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

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

(a) ^1H NMR (500 MHz, CDCl_3) of β -Farnesene



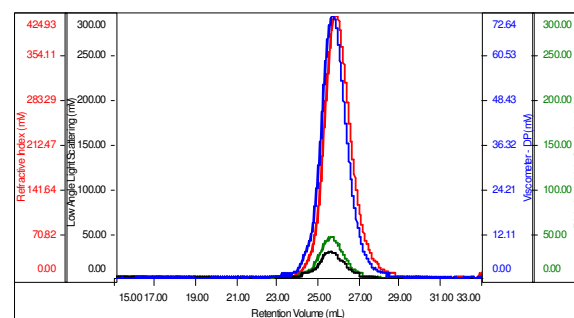
(b) ^1H NMR (500 MHz, CDCl_3) of P18588



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

SEC elugram of polyfarnesene.

Concentration (mg/mL)	124267
Sample chidc (mL/g)	0.1270
Method File	PS80K-March13-2014-0000.vcm
Column Set	3x PL 1113-6300
System	System1



Sample	Mh	Mw	Mp	Mw/Mh	IV
P18588-Far_01.vdt	7,089	9,573	3,569	1.350	0.1759