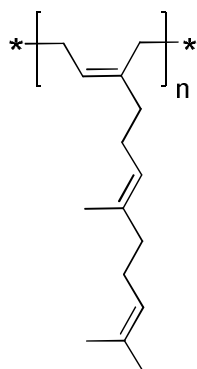


Sample Name:

**POLYFARNESENE, rich in 1,4-addition**

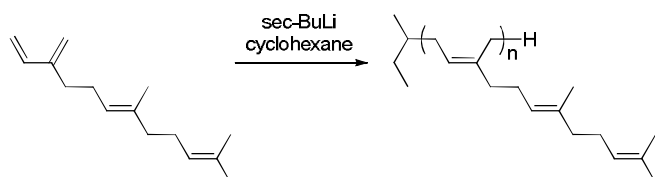
Sample # **P18420-Farne**



$M_n \times 10^3$ (g/mol)	$M_w/M_n$
6.5	1.2

### Synthesis:

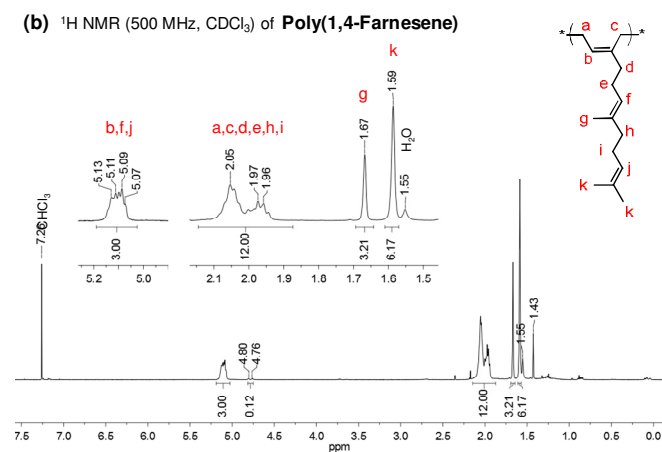
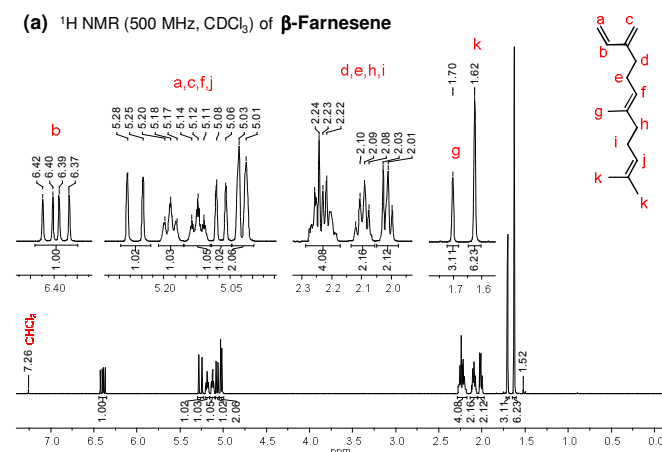
1,4-Polyfarnesene was synthesized by anionic living polymerization of  $\beta$ -farnesene in cyclohexane using sec-BuLi as an initiator.



### Characterization:

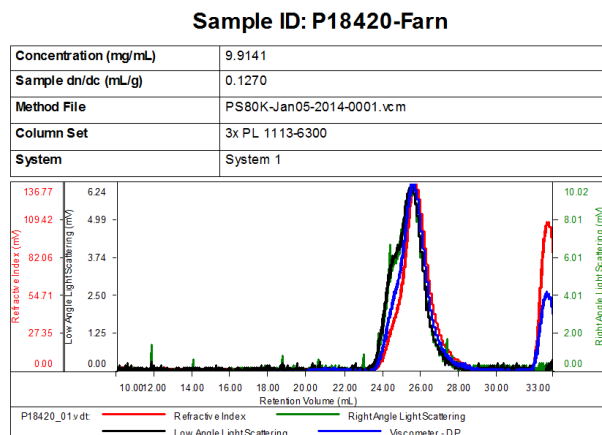
The absolute molecular weight and polydispersity index (PDI) were determined by size exclusion chromatography (SEC) using light scattering (LS) detector. SEC analysis was performed on a Varian ProStar liquid chromatograph equipped with UV-vis, RI and LS triple detector from Viscotec, three SEC columns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

$^1\text{H}$  NMR spectra: (a)  $\beta$ -farnesene, (b) polyfarnesene.



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

SEC elugram of polyfarnesene.



Sample	$M_n$	$M_w$	$M_p$	$M_w/M_n$	IV
P18420_01.vdt	6,377	7,721	6,591	1.211	0.0660