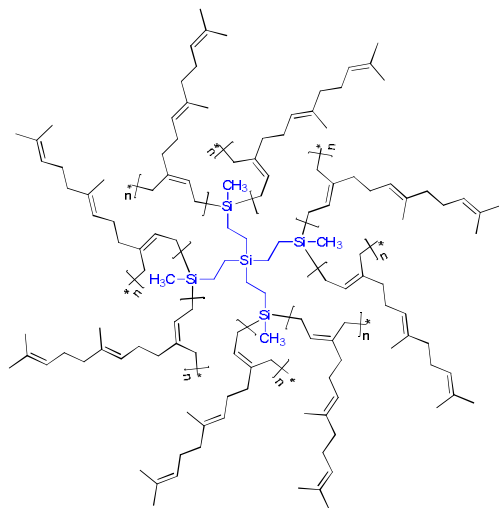


Sample Name:

8-Arm Star 1,4-POLYFARNESENE,

Core: *tetrakis(2-(methylsilyl)ethyl)silane*

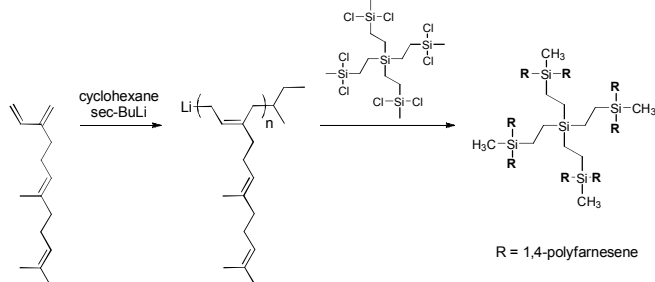
Sample # P18392-8-Farne



M_n (arm), g/mol	M_n (total), g/mol	M_w/M_n
7.5×10^3	52.0×10^3	1.06

Synthesis:

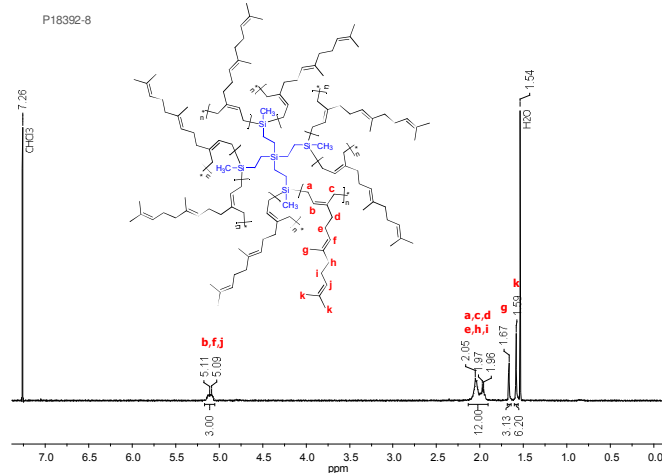
1,4-Polyfarnesene (PF) was synthesized by anionic living polymerization of β -farnesene in cyclohexane in presence of tetramethylethylenediamine (TMEDA) using *sec*-BuLi as an initiator; followed by PF coupling with *tetrakis*(2-[dichloro(methyl)silyl]ethyl)silane.



Characterization:

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

^1H NMR (500 MHz, CDCl_3) spectrum of star PF.

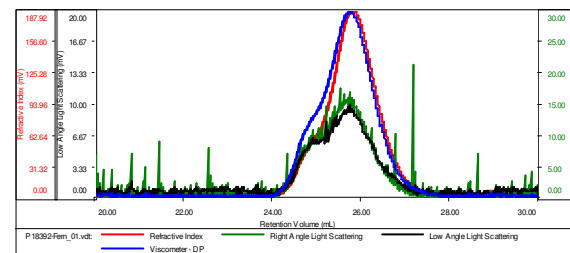


SEC elugrams: (a) PF arm, (b) star PF.

(a)

Sample ID: P18392A

Concentration (mg/mL)	4.2211
Sample dn/dc (mL/g)	0.1270
Method File	PS80K-Feb25-2014-0000.vcm
Column Set	3x PL 1113-6300
System	System 1

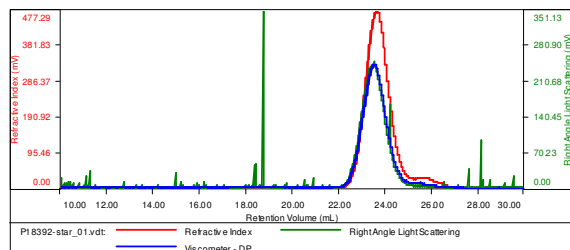


Sample	M_n	M_w	M_p	M_w/M_n	IV
P18392-Fern_01.vdt	7,655	8,085	7,700	1.056	0.1633

(b)

Sample ID: P18392-8

Concentration (mg/mL)	26.4953
Sample dn/dc (mL/g)	0.1230
Method File	PS80K-Jan05-2014-0001.vcm
Column Set	3x PL 1113-6300
System	System 1



Sample	M_n	M_w	M_p	M_w/M_n	IV
P18392-star_01.vdt	51,790	54,875	55,773	1.060	0.1265