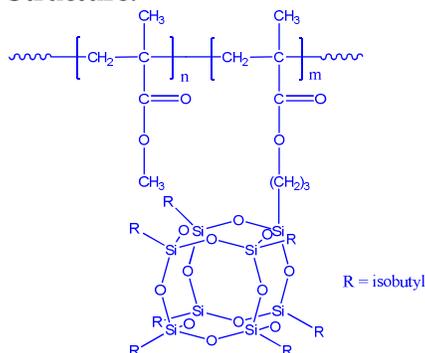


### Sample Name:

Poly( methyl methacrylate-b-isobutyl-POSS methacrylate)

Sample #: P9704-MMAPOSSMA

### Structure:



### Composition:

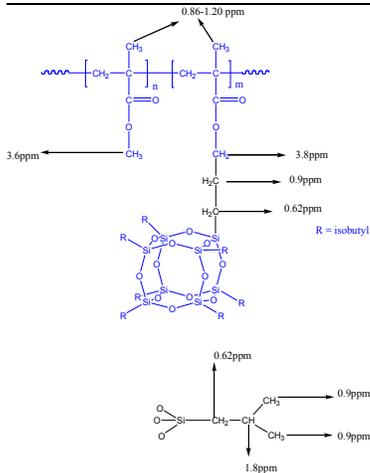
Mn × 10 <sup>3</sup> MMA-b-POSSMA	PDI
5.0-21.0	1.25

**Synthesis Procedure:** Poly(Methyl methacrylate-b-isobutyl-POSS methacrylate) Block copolymer is synthesized by living anionic polymerization with sequence addition of methyl methacrylate followed by addition of POSS methacrylate monomer. The obtained polymer was precipitation in methanol.

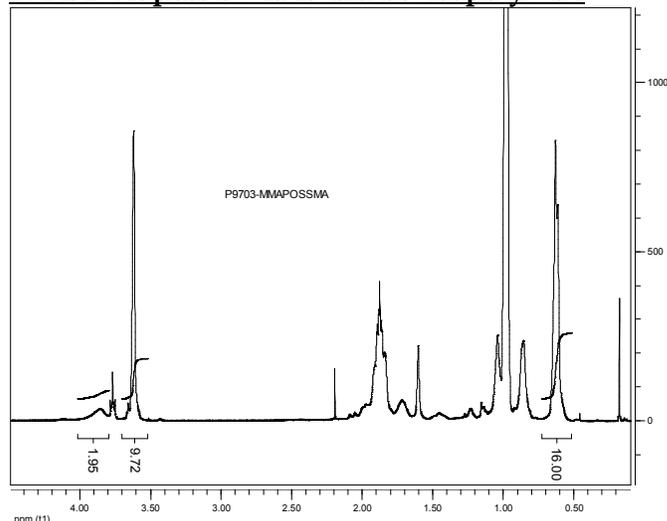
**Characterization:** Polymer was analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from HNMR.

**Solubility:** Polymer is soluble in THF, toluene. It is precipitated into methanol.

### Chemical Shifts of the Products:

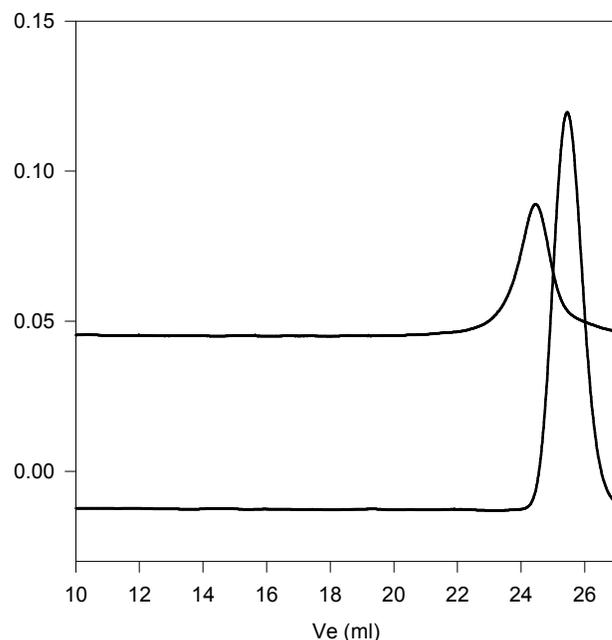


### <sup>1</sup>H-NMR Spectrum of the block copolymer:



### SEC of the block copolymer:

### P9704-MMAPOSSMA



— Poly(methyl methacrylate):  $M_n=5000$ ,  $M_w=5800$ ,  $M_w/M_n=1.15$   
— Block Copolymer MMA(5000)-b-POSSMA(21000),  $M_w/M_n=1.25$