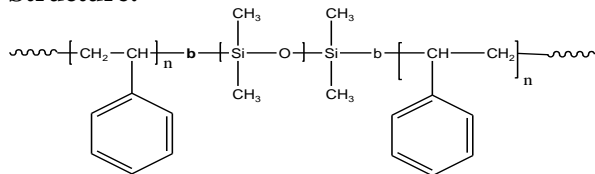


Sample Name:

Poly(styrene-b-dimethyl siloxane-b-styrene)

Sample #: **P42143B-SDMSS**

Structure:



Composition:

$M_n \times 10^3$ S-b-DMS-b-S	M_w/M_n (PDI)
17.0-b-10.0-b-17.0	1.10

Coupling %	>97%
Presence of AB diblock fraction	About <3 %

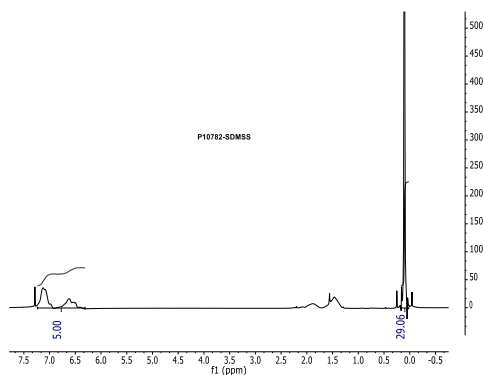
Synthesis Procedure:

Poly(styrene-b-dimethyl siloxane) is prepared by living anionic polymerization with sequence addition of styrene followed by hexamethyl cyclotrisiloxane and linking reaction using Dimethyl dichlorosilane. For the details please see the references.

Characterization:

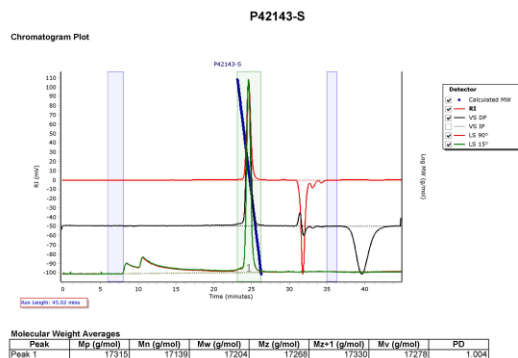
The product was characterized by size exclusion chromatography (SEC) and ^1H NMR.

^1H NMR spectrum of the sample:

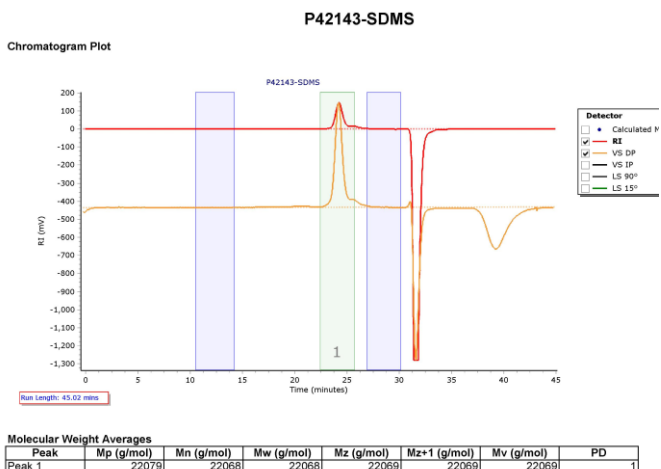


SEC elugram of the first block:

Agilent GPC/SEC Software

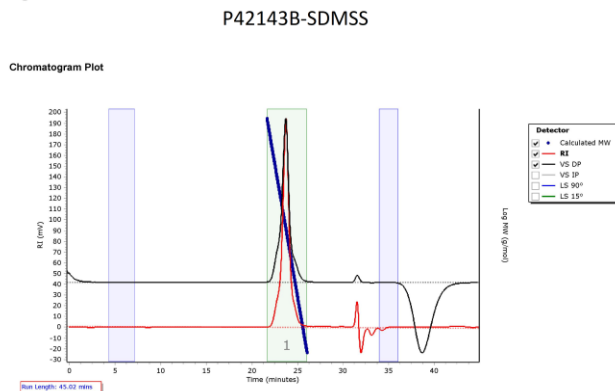


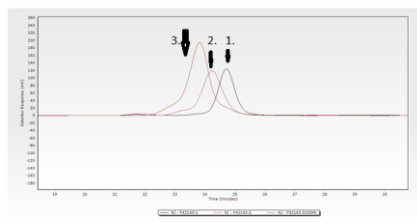
SEC elugram of the first block:



SEC elugram of the first block:

Agilent GPC/SEC Software





1. PS block, 2, PS-DMS
3. After linking and removing
Diblock unreacted

References:

- S. K. Varshney, D. N. Khanna "Hexamethylcyclotrisiloxane-Styrene Block Copolymers and their Chemical Composition" *CA Vol. 093, 26, 240325, J. Appl. Polym. Sci., 1980, 25, 2501-2511.*
- P. Bajaj, S. K. Varshney, "Morphology and Properties of Poly(Dimethylsiloxane-b-Styrene-b-Dimethylsiloxane) Polymers" *CA Vol. 093, 02, 008652, Polymer, 1980, 21, 201-206.*
- S. K. Varshney, C. L. Beatty "Synthesis and Characterization of Polymethylmethacrylate and Polydimethylsiloxane Block Copolymers Polymerizes with an Organometallic Initiator" *Org. Coat. Appl. Polym. Sci., 1981, 45, 151-157.*
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