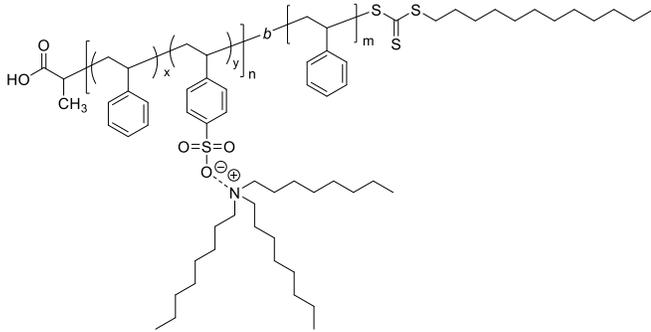


### Product Name:

**Poly(styrene-co-4-trioctylammonium styrene sulfonic acid)-block-polystyrene**

**Product # P42552A-SSSO3NtOcran-b-S**

### Structure:

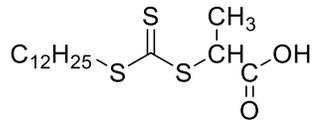


### Composition:

$M_n \times 10^3$ (g/mol) [SSSO3NtOcran-b-S]	$M_w/M_n$	Sulfonation (1 <sup>st</sup> block):
15.5-b-14.0	1.02	6 mol%

### Synthesis Procedure:

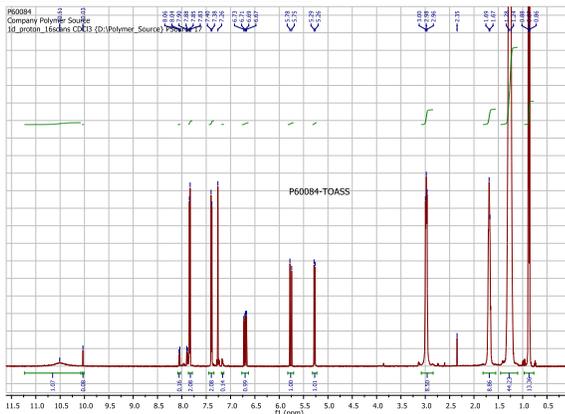
The polymer was synthesized by RAFT, using the following RAFT reagent:



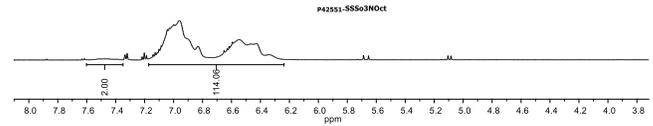
### Characterization:

The product was validated by size exclusion chromatography (SEC, using triple detection method) and proton NMR spectroscopy analysis.

### <sup>1</sup>H NMR spectrum of trioctylammonium-4-styrene sulfonate (TOASS) monomer:



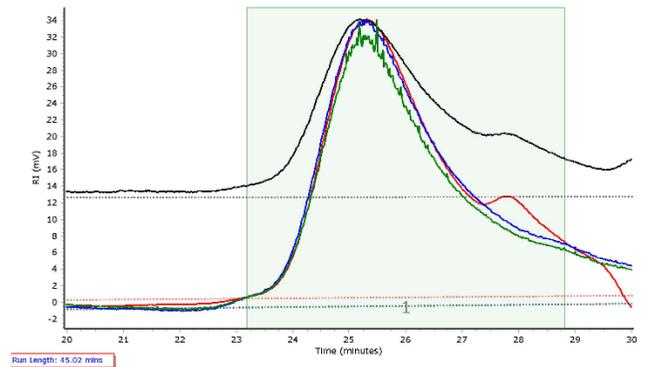
### <sup>1</sup>H NMR spectrum of the 1<sup>st</sup> block after sulfonation:



### SEC of the 1<sup>st</sup> block (copolymer):

Chromatogram Plot

P42551-SSSO3NOctran



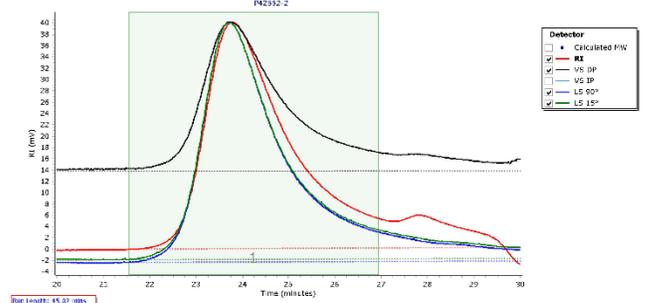
Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)
Peak 1	15986	15566	15597	15627	15657	15638

### SEC of the diblock copolymer (final product):

P42552-2

Chromatogram Plot



Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mv (g/mol)	PD
Peak 1	30700	28801	29111	29405	29681	29409	1.011