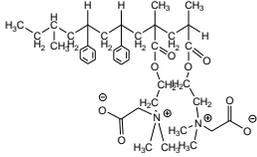


Sample Name: Zwitterionic block copolymer of Poly (styrene-*b*-*N,N*-dimethyl amino ethyl methacrylate) with bromoacetic acid

Sample #: P41665A-SDMAEMAZ

Structure:

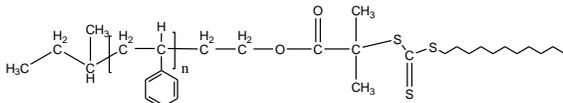


Composition:

Mn x 10 ³ S- <i>b</i> -DMAEMA-Z	Mw/Mn (PDI)
11.5- <i>b</i> -9.5	1.05
T _g for PS block: 80°C	T _g for DMAEMA block: Not distinct
DP of each Block 110- <i>b</i> -44	

Synthesis Procedure:

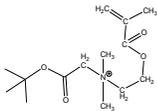
Poly (styrene-*b*-*N,N*-dimethyl amino ethyl methacrylate) is prepared by RAFT process using PS-RAFT macroinitiator (lot#P41656)



and the following monomer: 2-(*tert*-butoxy)-*N*-(2-(methacryloyloxy)ethyl)-*N,N*-dimethyl-2-oxoethanaminium

Sample #: Zwitter ionic -1 Lot#: P41655

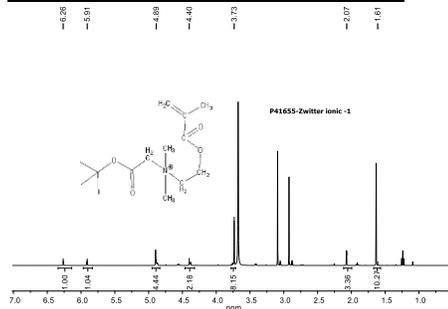
Structure:



2-(*tert*-butoxy)-*N*-(2-(methacryloyloxy)ethyl)-*N,N*-dimethyl-2-oxoethanaminium
Chemical Formula: C₁₇H₂₉N₂O₄⁺
Exact Mass: 372.19
Molecular Weight: 372.36

Composition: purity ≥ 97% (from NMR)

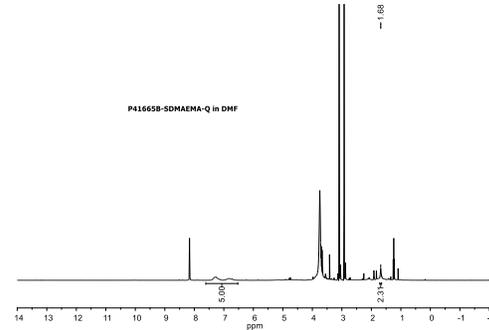
¹H NMR of the Zwitter ionic -1:



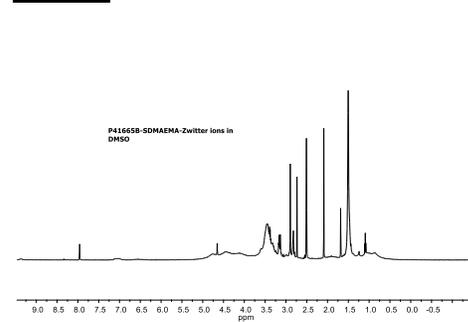
Characterization:

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

¹H NMR spectrum of the block copolymer carried out in DMF:



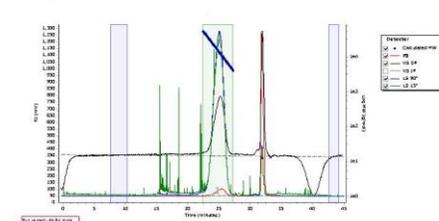
¹H NMR spectrum of SDMAEMAZ Sample runs in DMSO:



SEC profile of the S-RAFT macroinitiator

Agilent GPC/SEC Software

Chromatogram P41



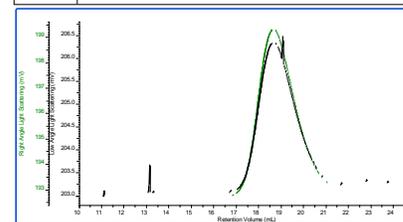
Molecular Weight Averages

Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz-1 (g/mol)	Mz (g/mol)	PDI
Peak 1	10960	11624	13310	15516	16337	15113	1.145

SEC profile of the Product:

P41665A-SDMAEMA-Z

dn/dc	0.0880
Flow	0.7000
Solvent	DMF with LiBr
Method	PSS column-PMMA60K-Jan3-2019-0002.vcm



Sample	Mn	Mw	Mz	IV	Mw/Mn
P41665A-SZw	19,341	20,369	21,522	0.0432	1.053