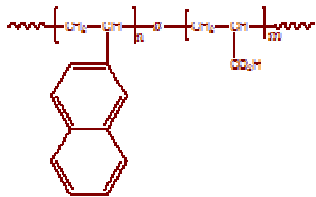


Sample Name:

Poly (2-vinyl naphthalene-b-acrylic acid)

Sample # P40338-2VNAA



Composition:

Mn x 10 ³ 2VN-b-AA	PDI
10.0-b-14.0	1.09

Synthesis Procedure:

The details are given in the following paper:

Faquan Zeng, Mu Yang, Jianxin Zhang, Sunil K. Varshney. *Synthesis and characterization of block copolymers from 2-vinylnaphthalene by anionic polymerization*, Journal of Polymer Science Part A: Polymer Chemistry, 40, 24, 4387-4397 2002

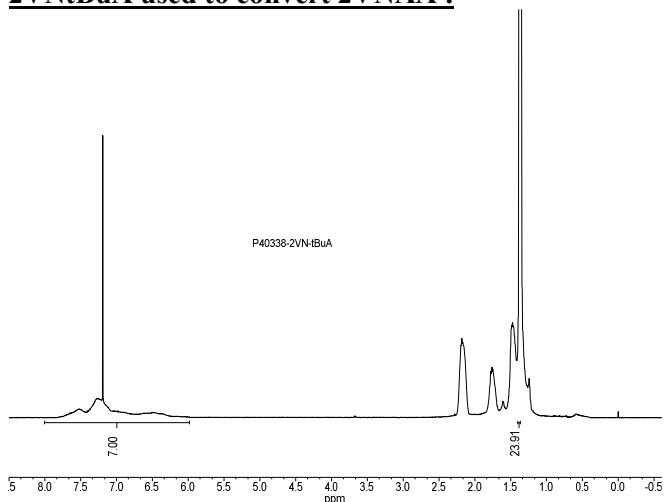
Characterization:

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

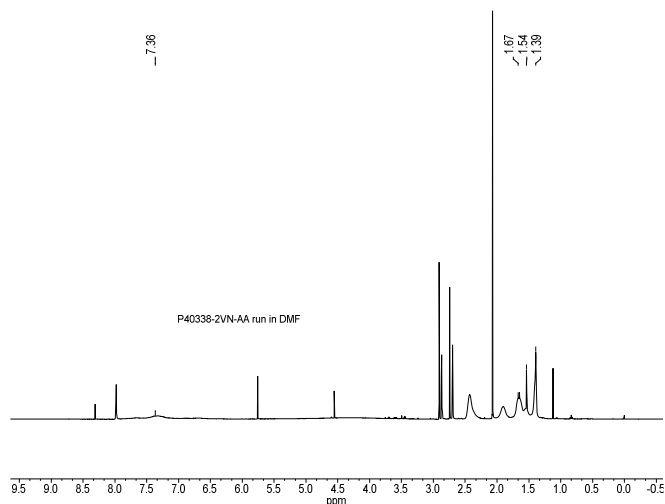
Solubility:

Poly (2-vinyl naphthalene-b-AA) block copolymer is soluble in THF, Dioxane.

¹H NMR spectrum of the of the sample P40338-2VNtBuA used to convert 2VNAA :

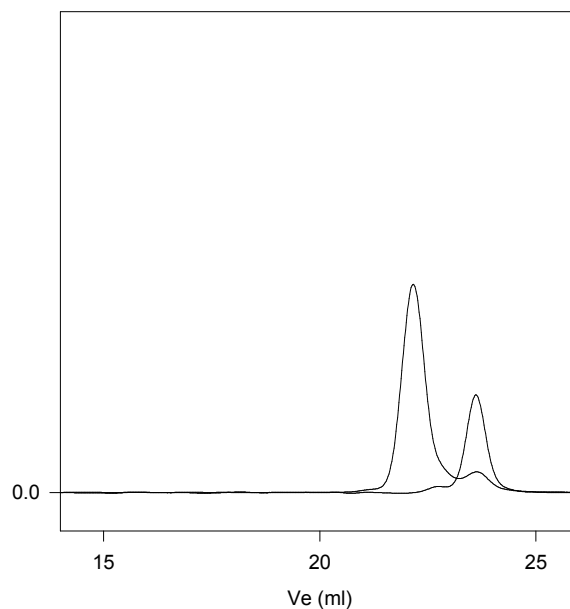


¹H NMR spectrum of the Product:



SEC elugram of the block copolymer :

**P40338-2VNtBuA
Precursor for the P2VN-b-PAA**



Size exclusion chromatography of
poly(2Vinyl naphthalene-b-tert.butylacrylate)
Molecular weight determined on line light scattering detector
Viscotek

— Poly(2 vinyl naphthalene), M_n=10,000, M_w=, PI=1.09
— Block Copolymer P2VN(10,000)-b-PtBuA(24,000), PI= 1.09
After the hydrolysis of Poly Tert. butyl acrylate:
P2VN(10,000)-b-AA(14,000)

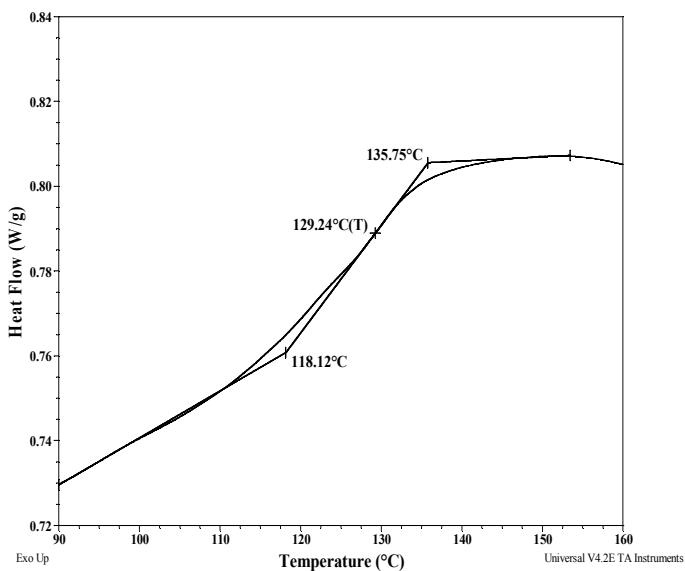
Thermal analysis of sample P40338-2VNtBuA used to convert 2VNAA

Thermal analysis of the samples was carried out on a TA Q100 differential scanning calorimeter at a heating rate of 10°C/min. The midpoint of the slope change of the heat flow plot of the second heating scan was considered as the glass transition temperature (T_g).

Glass transition temperature at a glance

T_g for PS block	129°C
T_g for nBuMA block	24°C

Thermogram of P2VN block:



Thermogram for tBuA block

