

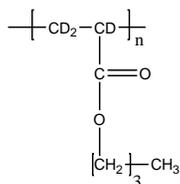
Sample Name:

Deuterated Poly(n-butyl acrylate-d3)

Backbone protons are deuterated

Sample #: **P43636C-d3nBuA**

Structure:



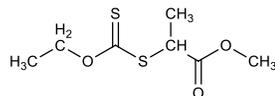
Composition:

M _n x 10 ³	PDI
5.5	1.16

Synthesis Procedure:

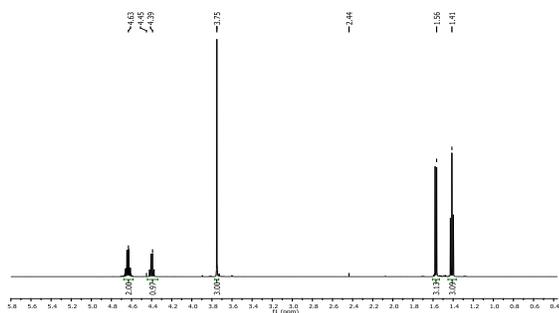
Poly(d3 acrylic acid) is obtained by the RAFT polymerization for d3AA monomer in dioxane. Then the obtained polymer was trans-esterified in presence of n-butanol.

RAFT reagent used in this synthesis:



Chemical Formula: C₇H₁₂O₃S₂
Molecular Weight: 208.3

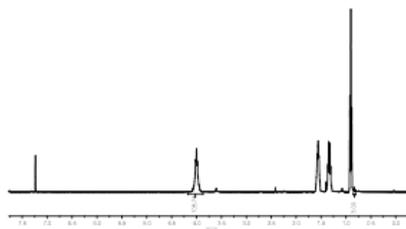
¹H NMR spectrum of RAFT (400 MHz, CDCl₃):



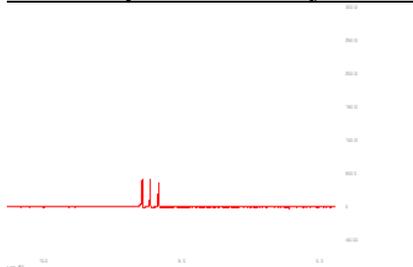
Characterization:

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

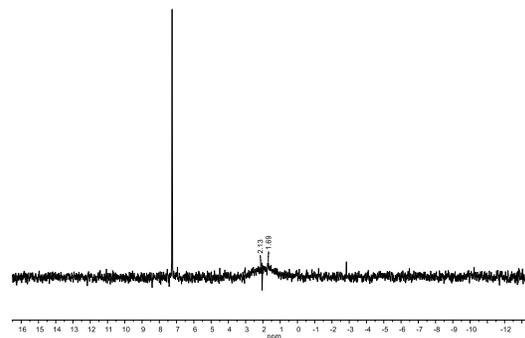
¹H NMR spectrum of the polymer in CdCl₃:



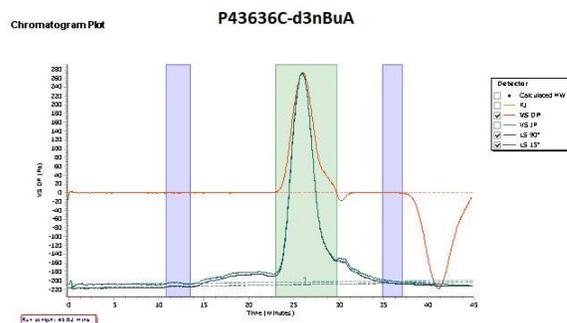
D NMR spectrum of acrylic acid monomer:



D NMR spectrum of the Polymer in CHCl₃:



SEC elugram of the Sample:



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mw (g/mol)	PDI
Peak 1	6273	5624	6525	7456	8376	7397	1.16