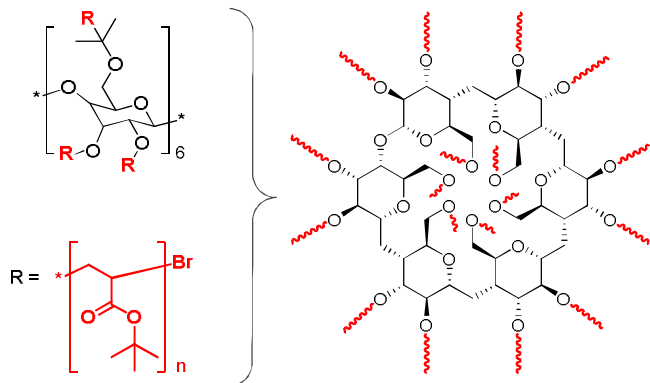


Sample Name:
**Star-like Poly(tert-Butyl Acrylate) with
 α -Cyclodextrin core**
 Number of arms: 13 arms

Sample # **P20137-13tBuA**

Structure:



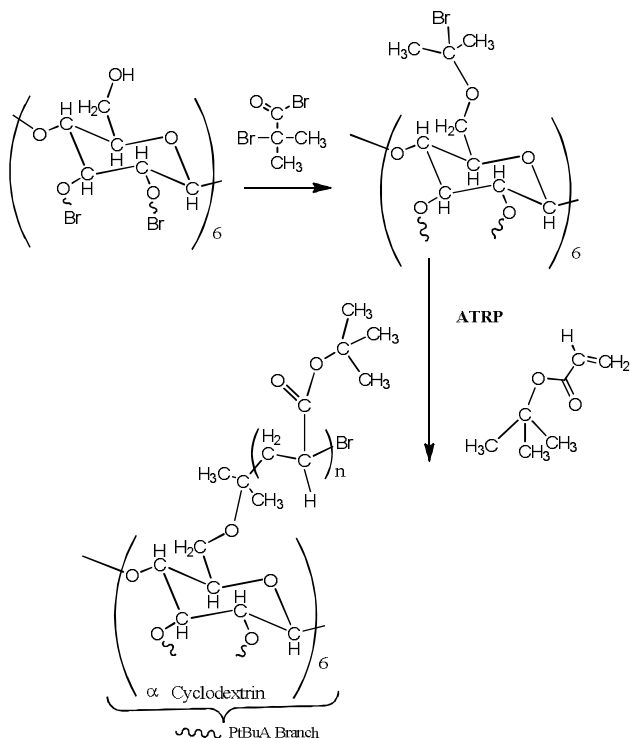
In star-like polymer that contains <18 arms, some R = H (hydrogen).

Composition:

Mn x 10 ³	PDI
Total: 124.0	1.25
Each branch: 9.5	-

Synthesis Procedure:

The polymer was synthesized by ATRP process:



Characterization:

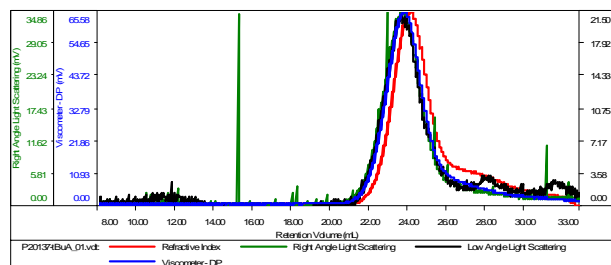
Molecular weight and polydispersity index were determined by size exclusion chromatography (SEC): The absolute molecular weight of the star-like polymer was determined by light scattering detector-Viscotek 270 model.

To analyze the molecular weight of the arms consisting of PtBuA, the ester groups located between cyclodextrin and PtBuA block were cut by hydrolysis in the basic condition.

SEC elugram of star polymer:

Sample ID: P20137-tBuA

Concentration (mg/mL)	25.6482
Sample dn/dc (mL/g)	0.0512
Method File	PS80K-NDV-2014-0003.vcm
Column Set	3x PL 1113-6300
Solvent	THF

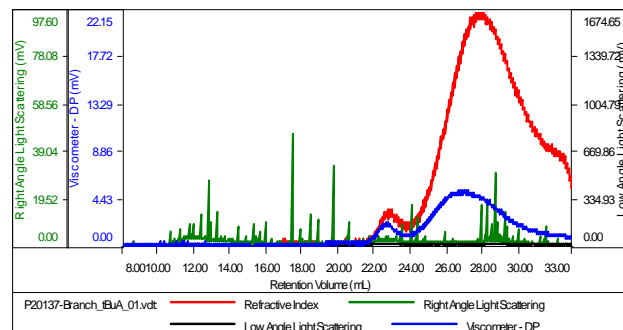


Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P20137-tBuA_01.vdt	123,860	155,675	159,566	1.257	0.1642

SEC elugram of branch (polymer after hydrolysis):

Sample ID: P20137-tBuA Branch

Concentration (mg/mL)	3.7916
Sample dn/dc (mL/g)	0.0850
Method File	PS80K-NDV-2014-0003.vcm
Column Set	3x PL 1113-6300
Solvent	THF



Sample	MW Number Average (Da)	MW Weight Average (Da)	MW at Peak (Da)	Polydispersity	Intrinsic Viscosity (dL/g)
P20137-Branch_tBuA_01.vdt	9,420	38,840	47,362	4.123	0.1570