

1/7

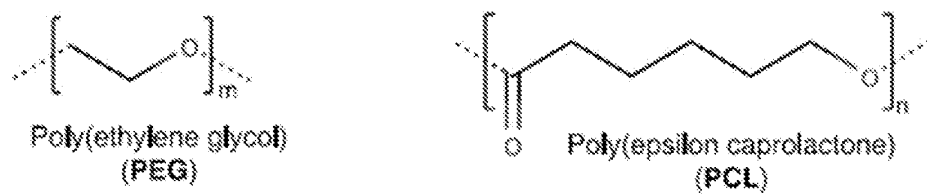
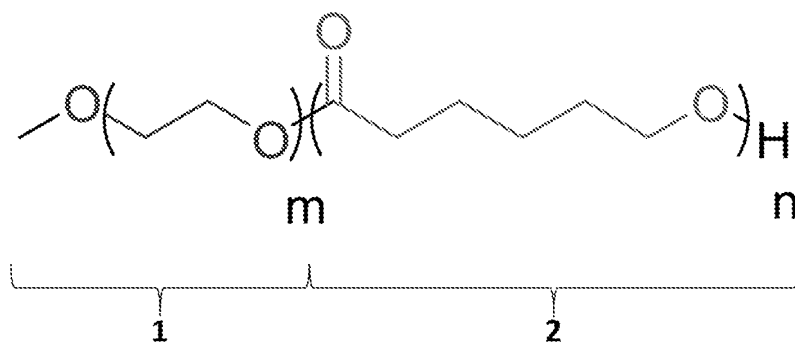
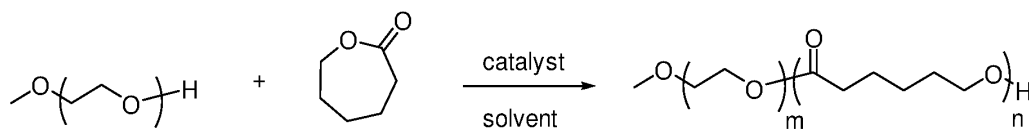
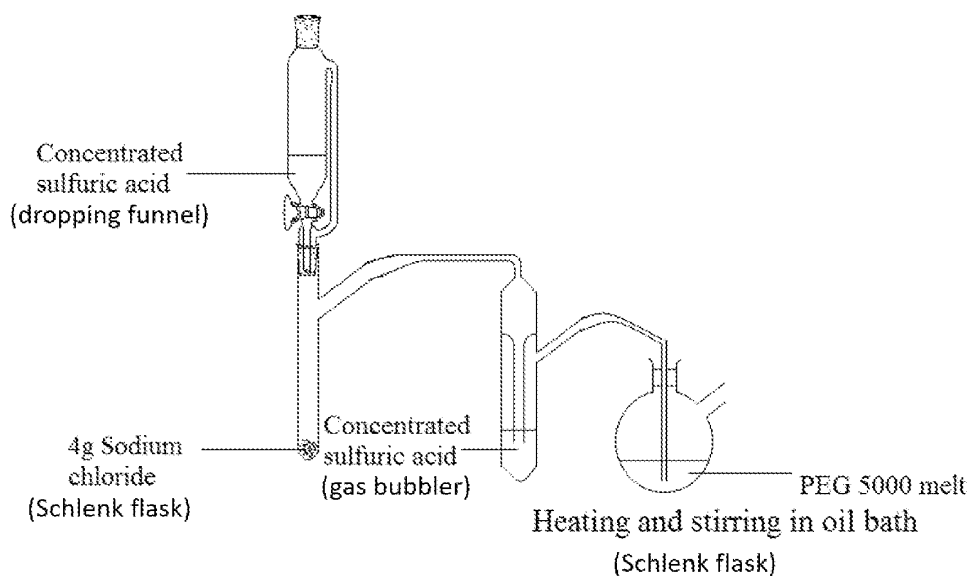
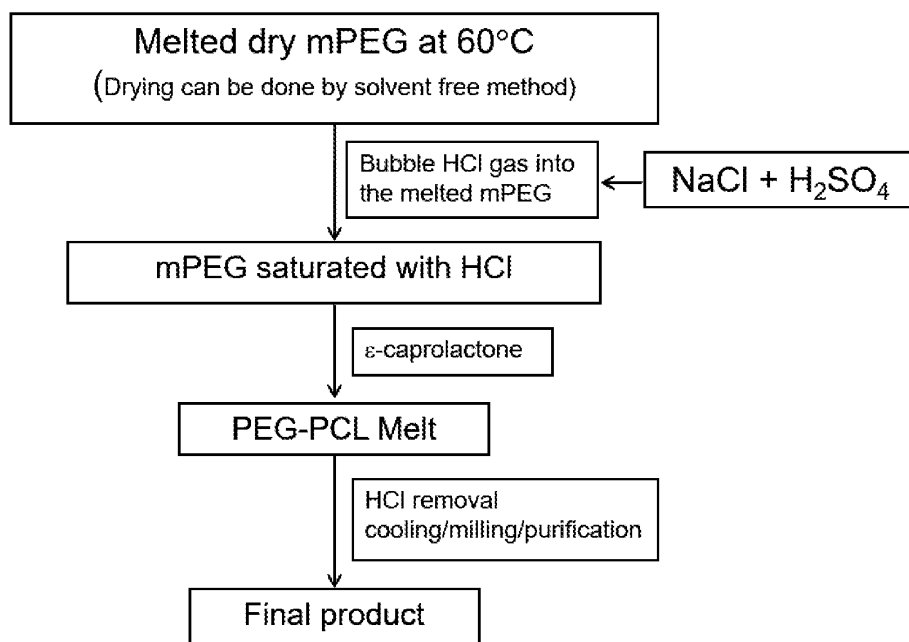
FIG. 1A**FIG. 1B****FIG. 2**

FIG. 3

Catalyst	Solvents	Temperature of reaction	Time taken	Purification steps of PEG-PCL formed	Solvent used for reaction and/or purification	Yield%	Amount of PEG-PCL produced	PCL chain length achieved
Sn(Oct) ₂	Nil	160°C	4 hrs	Dissolved in DCM and precipitated in cold methanol/hexane	No solvent used for synthesis reaction but solvent used for purification	>80	5 mg to 1 g scale	500-20000
HCl in ether (activator)	n-butyl alcohol & DCM	25°C	24 hrs	precipitated in n-hexane	300 ml. of hexane used for precipitation	92	1.00 g	3000-10000
Formic Acid	Nil	100°C	24h	add EtOH, heat <60°C till dissolved. Cooled to room temperature and stored in freezer at -18°C. Precipitated after ~2hrs and washed with -18°C EtOH	No solvent used for reaction. Purification: the EtOH needed depends on the extrapolated solubility data for formic acid (FA) in ethanol to remove all FA.	>70	1 g to 10 g	450-2000
Ca and NH ₃	Xylene	60°C	24h	Dissolved in CHCl ₃ and ppt in IPA	Xylene used for reaction CHCl ₃ used for purification	>70	in the range of mg to gram	-
HCl in ether	DCM	rt	24h	Precipitated in cold hexane	DCM used for reaction CHCl ₃ used for purification	92	in the range of gram	-
Sn(Oct) ₂	-	160°C	-	Precipitation used but liquid used for precipitation not indicated	Not specifically mentioned	>70	in the range of mg to gram	-

3/7

FIG. 4A**FIG. 4B**

4/7

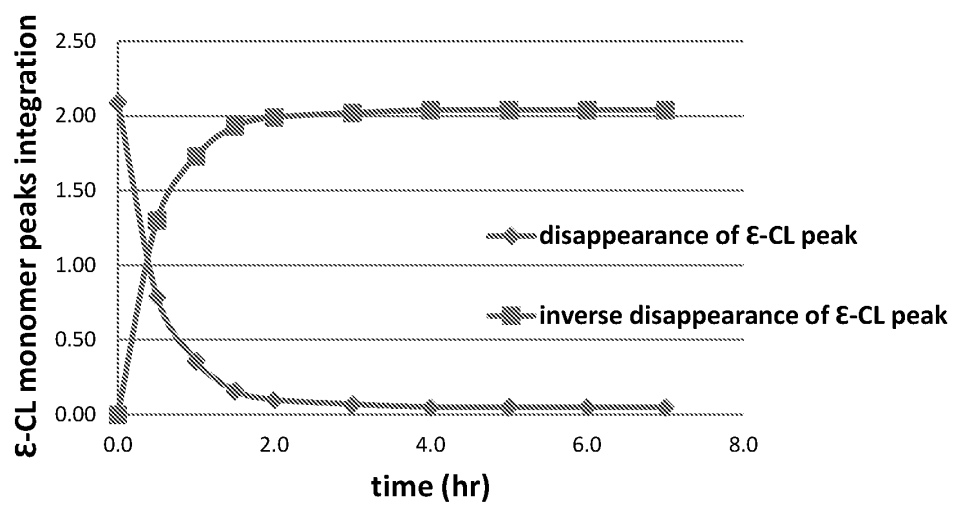
FIG. 5A

FIG. 5B

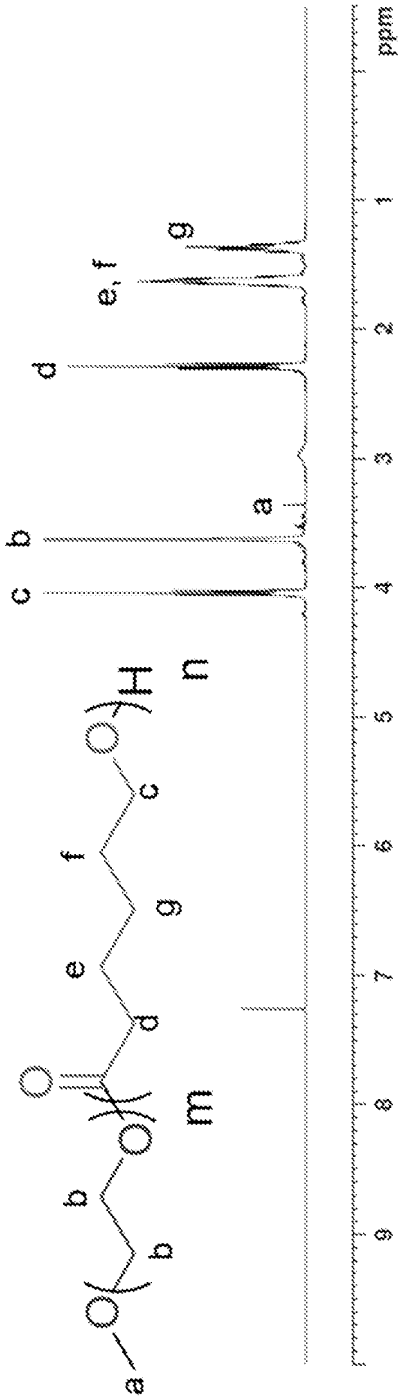


FIG. 6A
Size Exclusion Chromatography

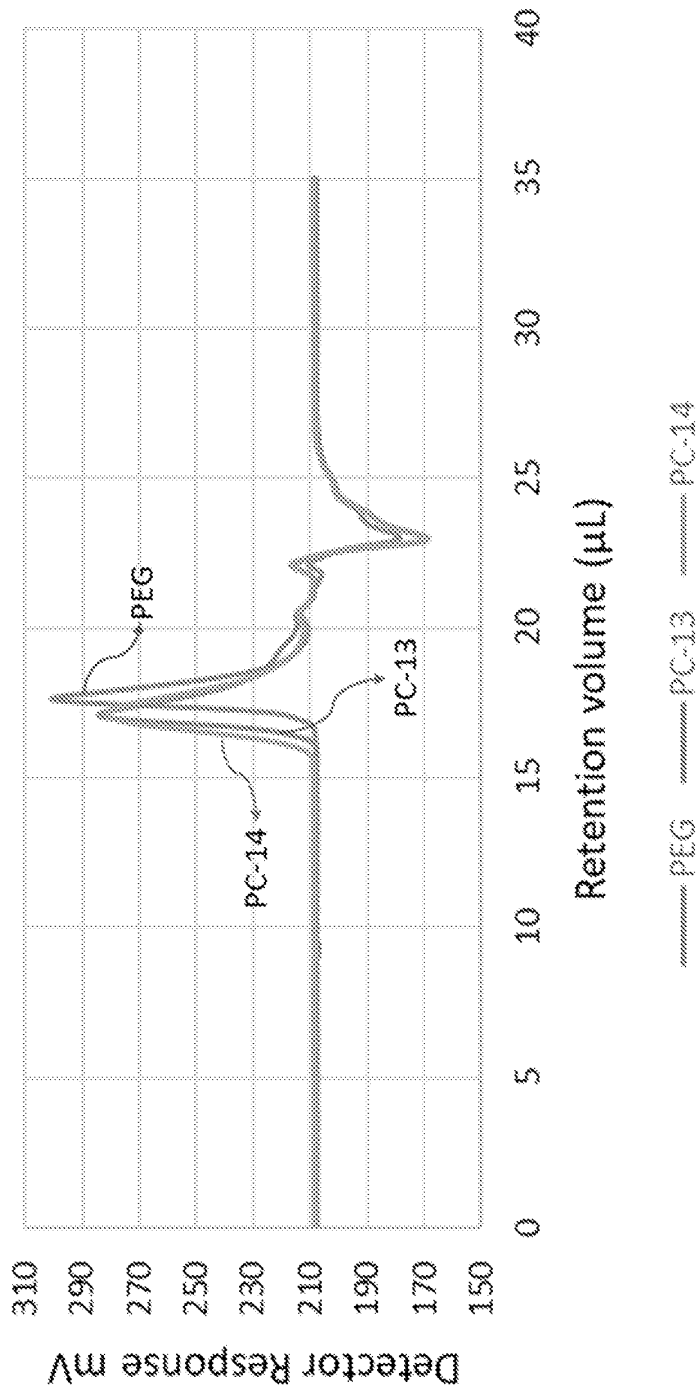


FIG. 6B

