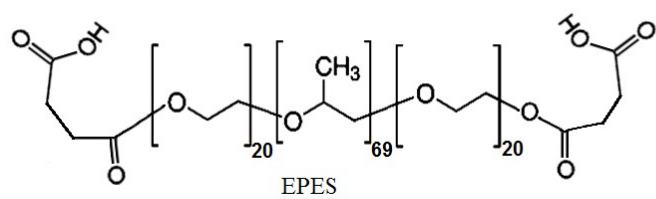


S1. Scheme of carboxylation of EPE using SA.



S2. ¹H NMR chemical shifts of EPE, EPES and EPEM in CDCl₃ at 25 °C.

Proton	δ (ppm)
-CH ₂ O-	3.70 - 3.74
-CH ₂ CH ₂ -OH	3.64 - 3.58
-CH ₂ CH ₂ -O-	3.64 - 3.66
-O-CH _H CH(CH ₃)-O-	3.43 - 3.36
-O-CH _H CH(CH ₃)-O-	3.58 - 3.50
-O-CHCH(CH ₃)-O-	1.143 - 1.135
-OH	2.45 - 2.42
-CH=CH-	6.22 - 6.35
-CH ₂ CH ₂ -COOH	2.55

S3. ^{13}C NMR spectra (125 MHz, CDCl_3 , δ/ppm) of (a) EPE: 63.7 (a, $-\text{CH}_2-\text{OH}$), 72.5 (b, $-\text{CH}_2-\text{CH}_2-\text{O}-$), 18.8 (c, $-\text{CH}_3$), 76.9 (d, $-\text{O}-\text{CH}-$), 75.0 (e, $-\text{O}-\text{CH}_2-$); (b) EPES: 173.8 and 175.0 (a, $-\text{COO}-$) 30.4 and 30.9 (b, $-\text{CH}-\text{CH}-$); (c) EPEM: 167.5 and 168.1 (a, $-\text{COO}-$), 130.6 and 133.1 (b, $-\text{CH}=\text{CH}-$).

