

Epoxidation of Cardanol's Terminal Double Bond

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Supplementary Information

¹H-NMR analysis of SCECGE and TE-SCECGE resins.

Equations S1, S2, S3: Equations to calculate different monomer functionalities for SCECGE and TE-SCECGE resins.

$$\text{Terminal double bond functionality:} \quad ((I_B + I_D)/I_J) \times (3/3) \quad (\text{S1})$$

$$\text{Secondary epoxy functionality:} \quad (I_C)/I_J \times (3/1) \quad (\text{S2})$$

$$\text{Primary epoxy functionality:} \quad (I_L)/I_J \times (3/1) \quad (\text{S3})$$

Table S1. Normalized peak intensity values as obtained via ¹H-NMR traces of the reactant SCECGE.

Peak Designation	Shift (ppm)	Peak Name	Normalized Intensity
B–D	5.2–5.8	Terminal double bond (-CH ₂ =CH)	0.96 (3H)
C'	2.9–3.2	Secondary epoxy (CH-O-CH)	1.40 (1H)
L	3.4	Primary epoxy & terminal epoxy CH ₂ -CH-O-CH ₂	1.05 (1H)
J	0.88	Terminal methyl (-CH ₃)	3 (3H)

Table S2. Normalized peak intensity values as obtained via ¹H-NMR traces of the product TE-SCECGE.

Peak Designation	Shift (ppm)	Peak Name	Normalized Intensity
B–D	5.2–5.8	Terminal double bond (-CH ₂ =CH)	0.30 (3H)
C'	2.9–3.2	Secondary epoxy (CH-O-CH)	1.40 (1H)
L	3.4	Primary epoxy & terminal epoxy CH ₂ -CH-O-CH ₂	1.25 (1H)
J	0.88	Terminal methyl (-CH ₃)	3 (3H)



