Supplementary Information

Thermal and Mechanical Characterization of Epoxy/Polyimide Blends via Post-Curing Process

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Table S1. Nomenclature of Epoxy/Polyimide Blends Mixed with Stoichiometric Equivalent Ratio Equation

Table S2. T_{ci}, T_{cp}, T_{cf}, and ΔT_{cif} Values of Epoxy/Polyimide Blends with Various Polyimide Contents

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Table S1. Nomenclature of Epoxy/Polyimide Blends According to Stoichiometric Equivalent Ratio Equation

Nomenclature	Epoxy (g)	DDM (g)	Polyimide (g)	Curing time (h)	Post curing time (h)
EP	100	26.09	0	1	-
EPI-1	100	24.41	10	1	-
EPI-2		22.72	20		
EPI-3		21.04	30		
EPI-4		19.35	40		
EPI-5		17.67	50		
EPI-5-1	100	17.67	50	1	1
EPI-5-5					5
EPI-5-10					10

Table S2. T_{ci}, T_{cp}, T_{cf}, and ΔT_{cif} Values of Epoxy/Polyimide Blends with Various Polyimide Contents

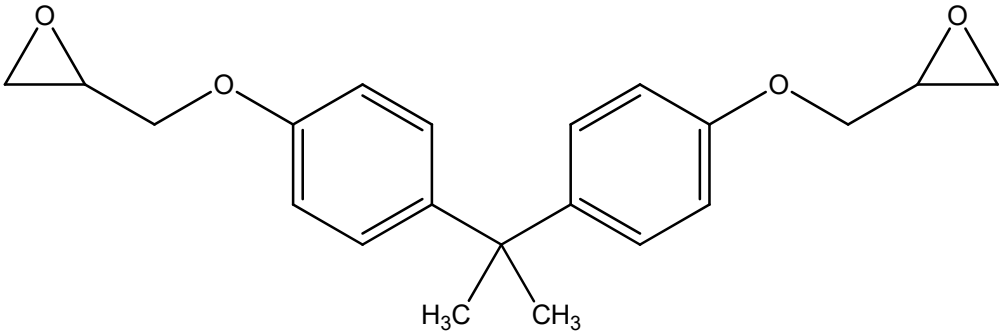
Sample	T_{ci} (℃)	T_{cp} (℃)	T_{cf} (℃)	ΔT_{cif} (℃)
EP	126.20	168.05	205.77	79.57
EPI-1	116.70	166.32	204.58	87.88
EPI-2	114.87	162.39	218.94	104.07
EPI-3	101.68	163.64	231.80	130.12
EPI-4	105.51	165.18	237.23	131.72
EPI-5	103.25	167.62	239.01	135.76

T_{ci}: Initial curing temperature

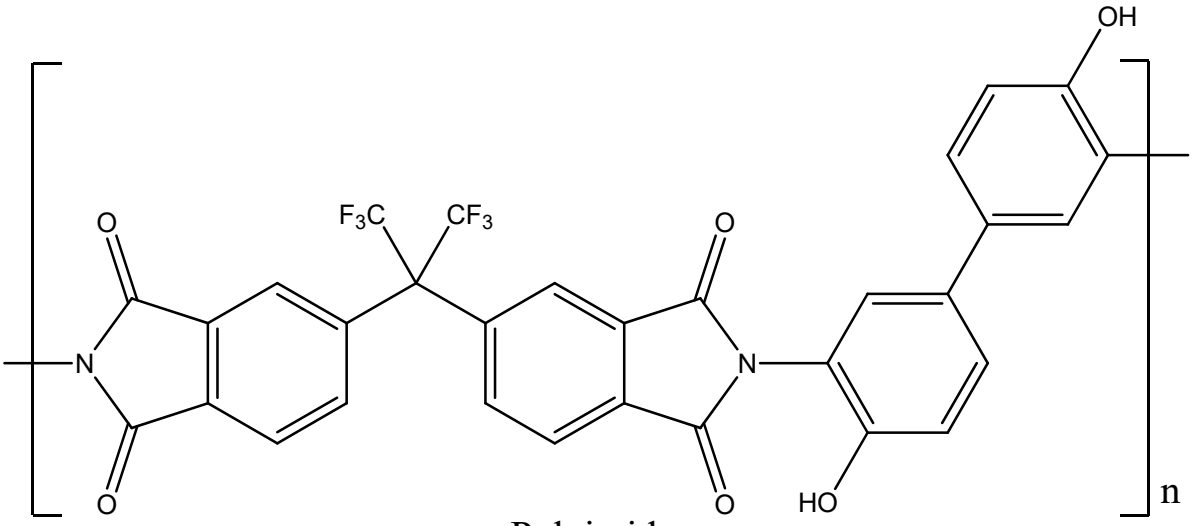
T_{cp}: Curing peak temperature

T_{cf}: Curing finish temperature

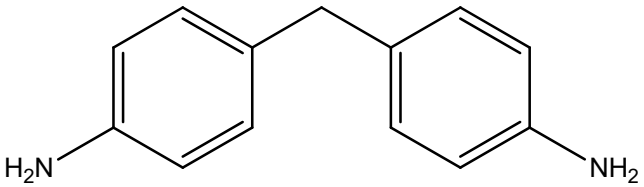
ΔT_{cif}: Range of curing temperature



Epoxy resin (DGEBA)



Polyimide



4,4'-Diaminodiphenylmethane

Figure S1. Chemical structures of epoxy, polyimide, and 4,4’-diaminodiphenylmethane.

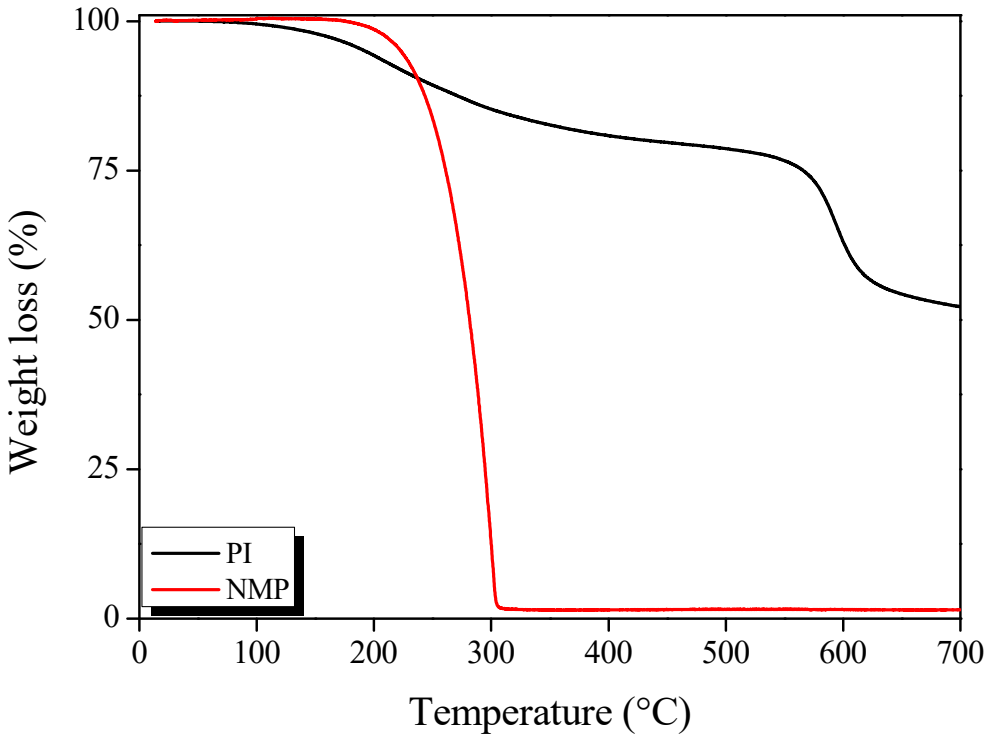


Figure S2. Thermogravimetric analysis (TGA) thermograms of polyimide and NMP analyzed in N_2 gas atmosphere.

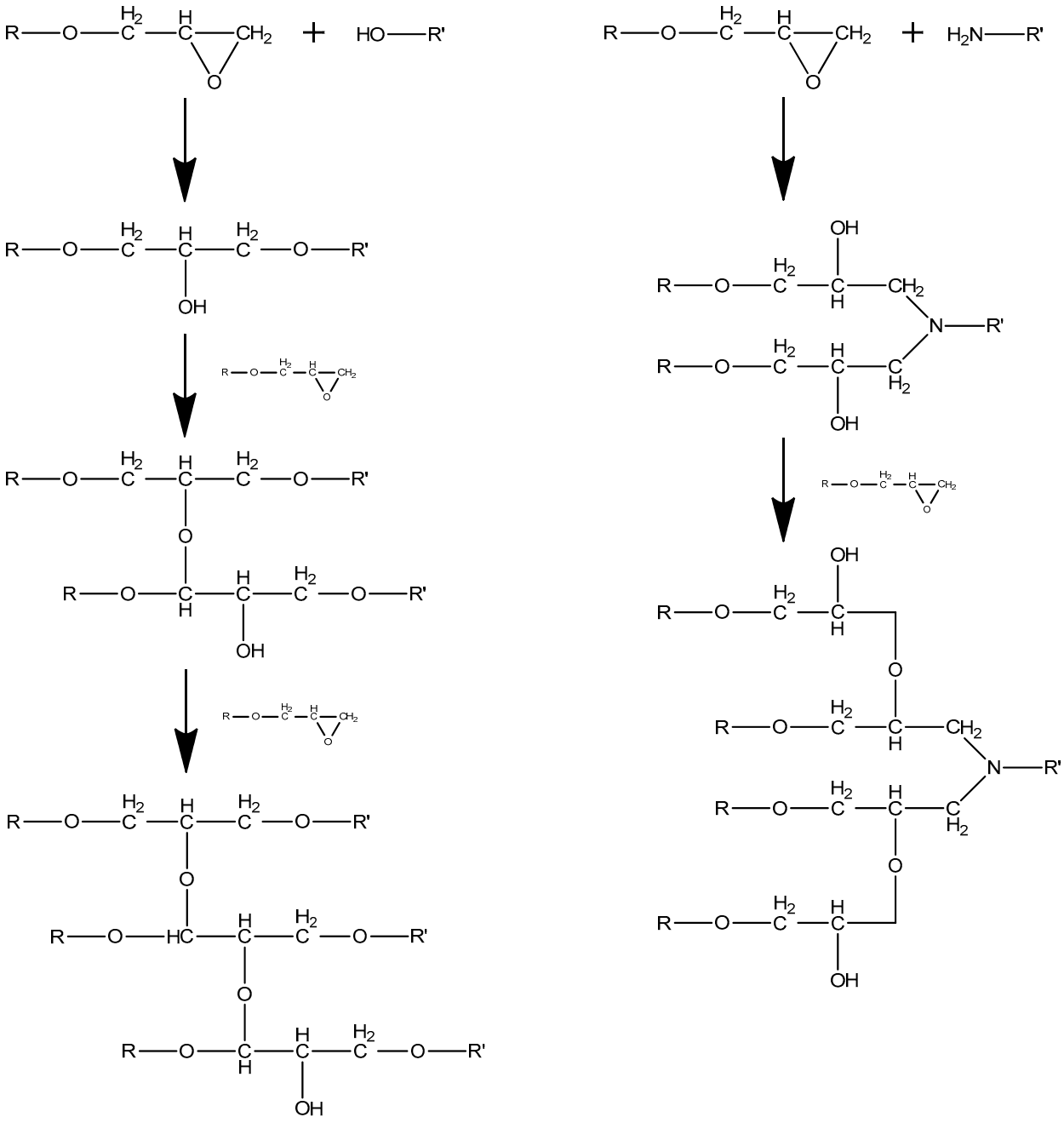


Figure S3. A schematic showing curing mechanisms of epoxy/polyimide and epoxy/DDM reaction.

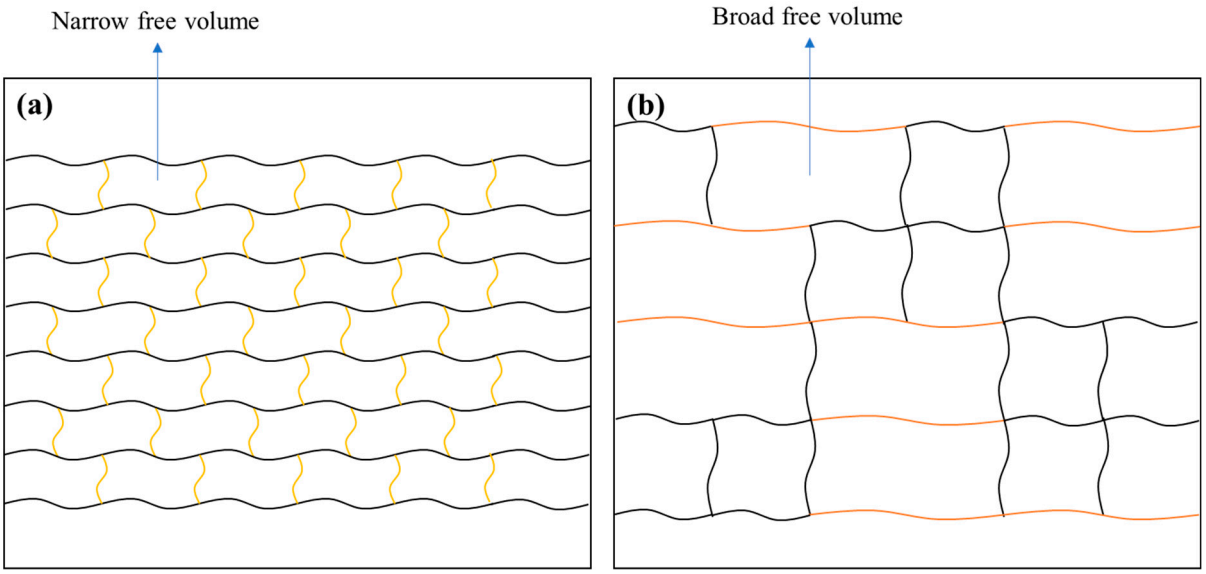


Figure S4. Schematic representation of (a) epoxy/DDM and (b) epoxy/polyimide cross-linking network.

*Black line: epoxy

**Yellow line: DDM

***Orange line: polyimide

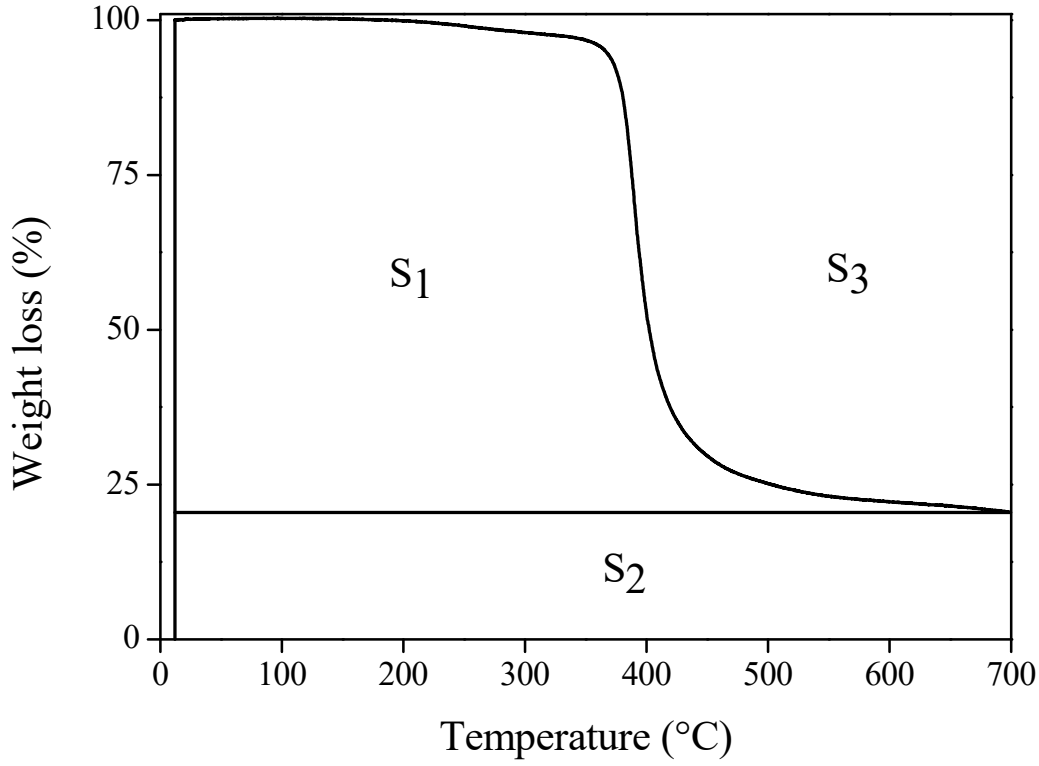


Figure S5. Schematic representation of S_1, S_2, and S_3 for A^+ and K^+.