

Supporting Information for

Enhanced poly(propylene carbonate) with thermoplastic networks: A cross-linking role of maleic anhydride oligomer in CO₂/PO copolymerization

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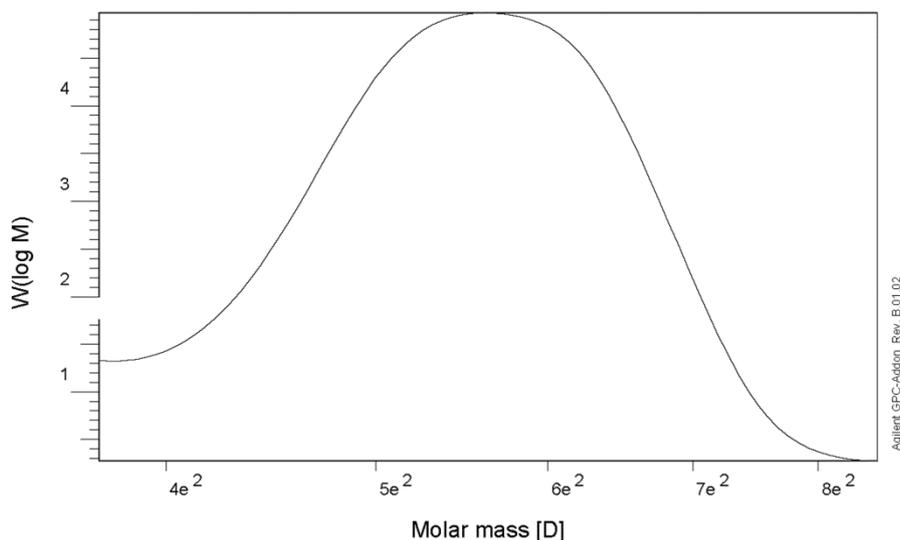


Figure S1. GPC curve of MAO.

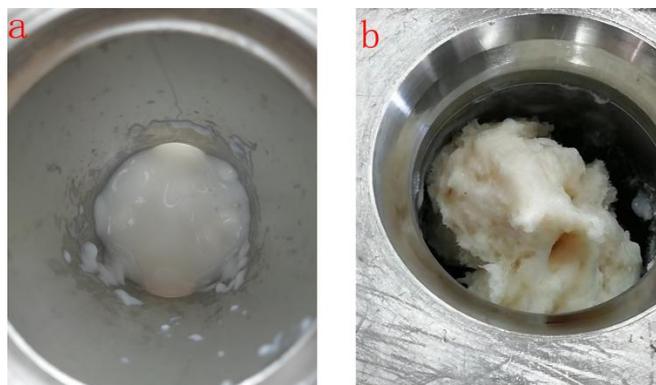


Figure S2. The photographs of (a) PPC and (b) PPC - MAO2.5 at the end of the polymerization.

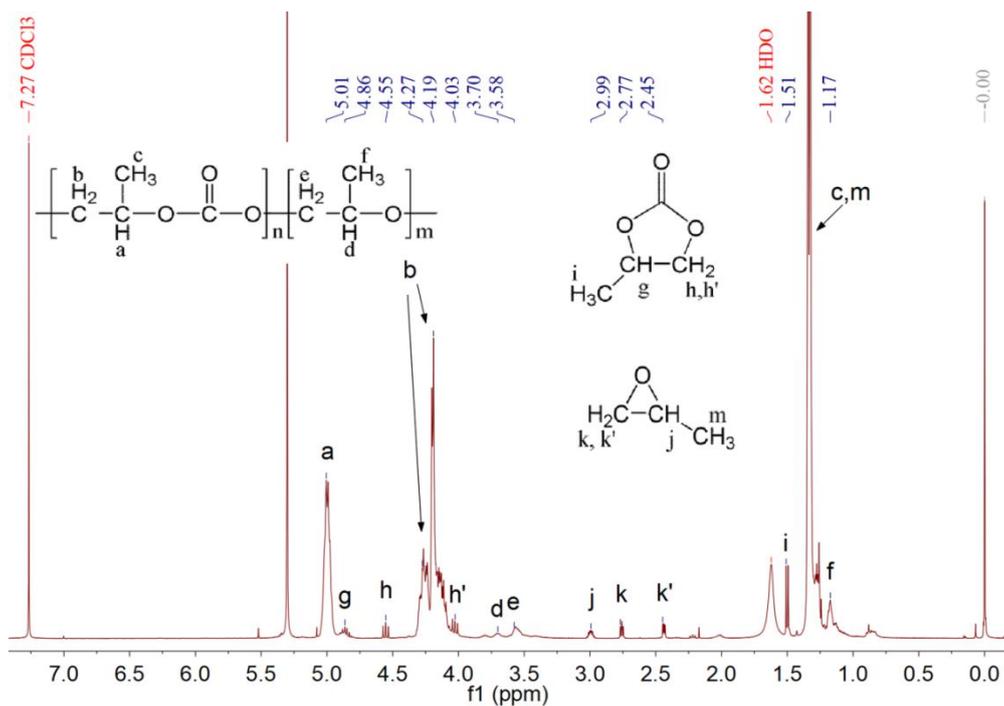


Figure S3. The ^1H NMR spectrum of the reaction mixture after $\text{CO}_2/\text{PO}/\text{MAO}$ copolymerization (2.5 wt % MAO of PO was used).

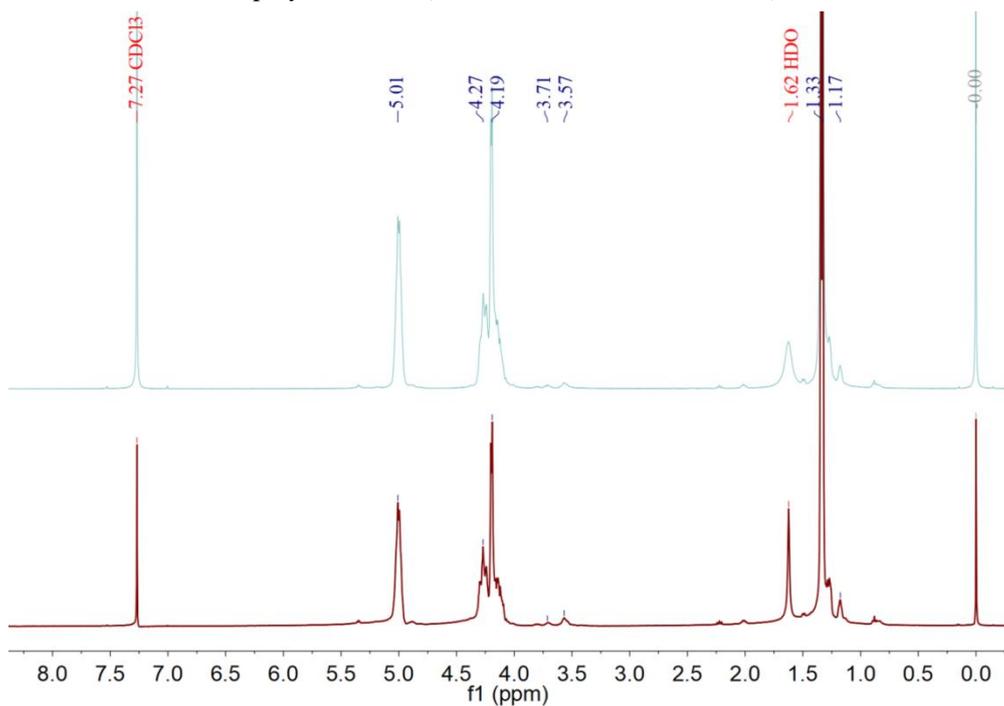


Figure S4. The ^1H NMR spectra of PPC (upper) and PPC - MAO2.5 (below) after purification.

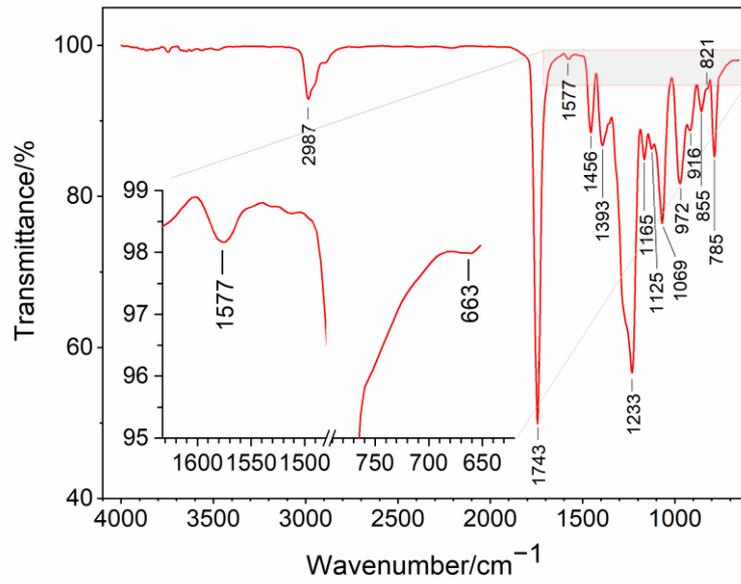


Figure S5. The FT-IR spectrum of PPC.

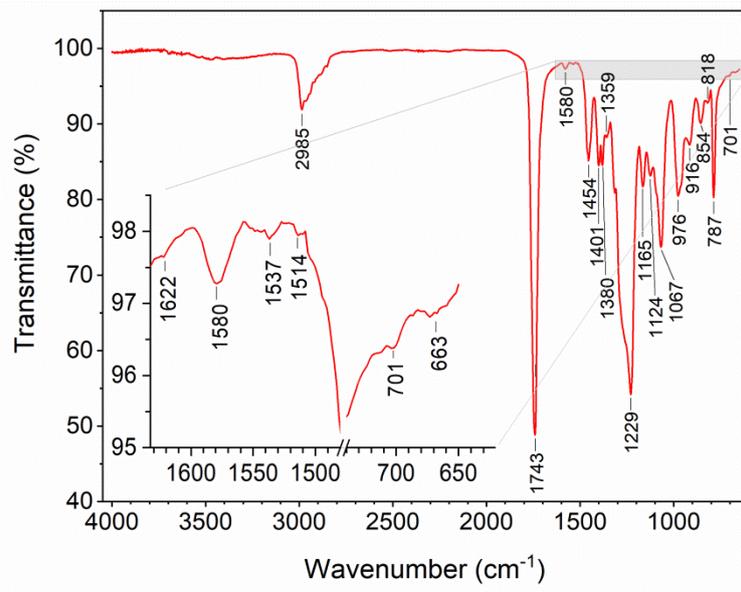


Figure S6. The FT-IR spectrum of PPC - MAO2.5.

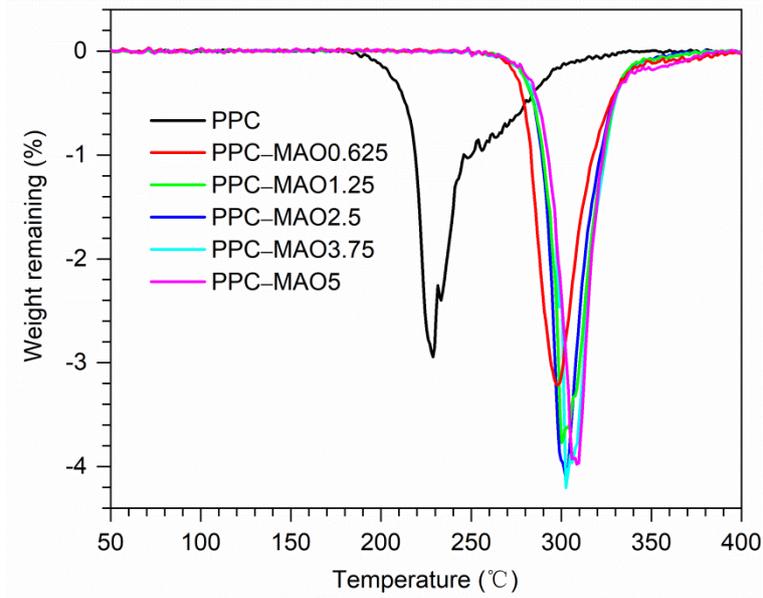


Figure S7. The DTG curves for PPC and PPC - MAOs with networks.

Table S1. The tensile results of PPC and PPC - MAOs with networks.

Sample	Tensile strength/MPa	Elongation at break/%
PPC	12.5±1.4	528±13
PPC -	16.8±1.5	422±10
PPC - MAO1.25	20.0±1.9	263±8
PPC - MAO2.5	26.4±2.1	82±4
PPC - MAO3.75	32.1±2.5	58±3
PPC - MAO5	38.4±3.1	25±2

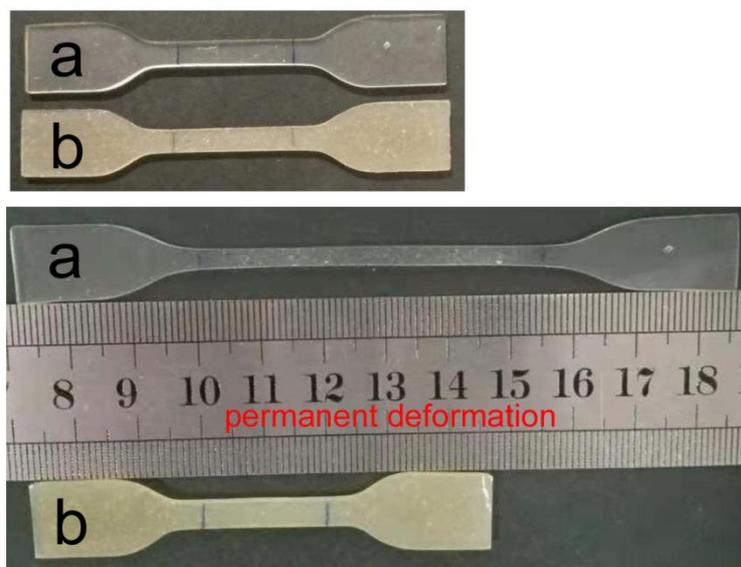


Figure S8. The photographs of dumbbell specimens before (upper) and after (below) hot-set test. (a) PPC, (b) PPC - MAO5. The photo below is the permanent deformation.