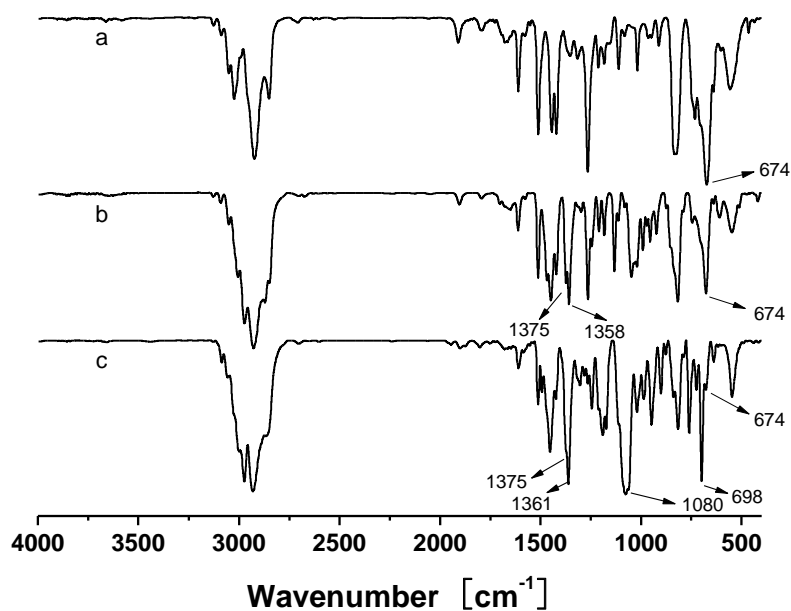


Supporting Information

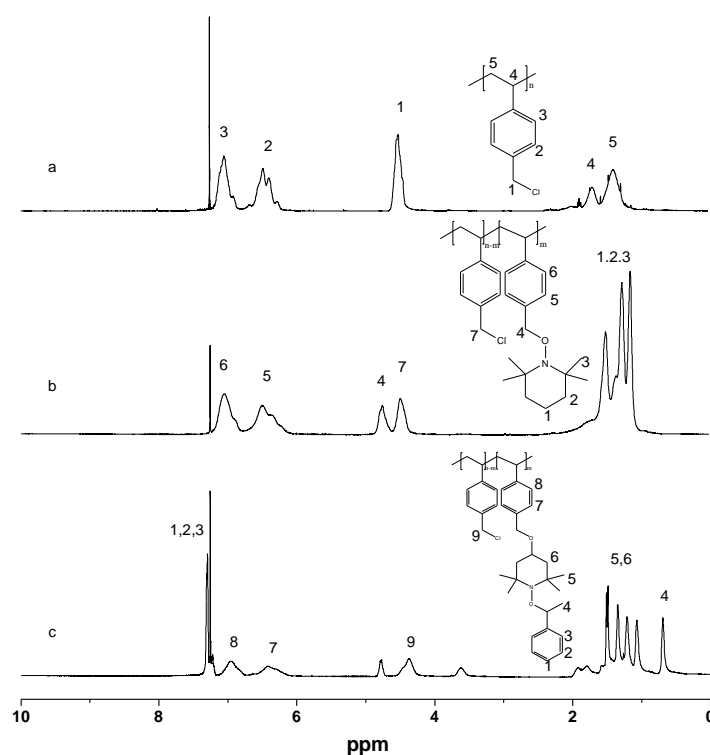
**Reversibility of solid state radical reactions in thermally remendable polymers  
with C-ON bonds**

Fei Wang, Min Zhi Rong,\* Ming Qiu Zhang\*

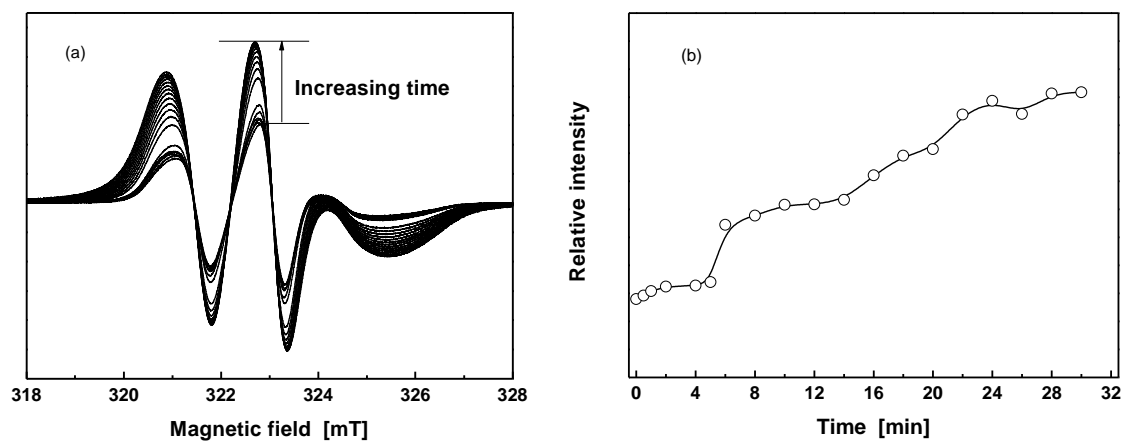
Key Laboratory for Polymeric Composite and Functional Materials of Ministry of  
Education, DSAPM Lab, School of Chemistry and Chemical Engineering,  
Sun Yat-sen University, Guangzhou 510275, China



**Figure S1.** FTIR spectra of (a) PCMS, (b) PCMS-TEMPO and (c) PCMS-TEMPO-EOPh.



**Figure S2.**  $^1\text{H}$ -NMR spectra of (a) PCMS, (b) PCMS-TEMPO and (c) PCMS-TEMPO-EOPh.



**Figure S3.** (a) ESR spectra of PCMS-TEMPO/PCMS-TEMPO-EOPh blends recorded at 125 °C for different retention times. (b) Time dependence of relative ESR signal intensities calculated from integral area of the spectra.