

Synthesis of a highly efficient phosphorous-containing flame retardant utilizing plant-derived diphenolic acids and its application in polylactic acid

Jian Jing,^{ab} Yan Zhang,^b Xinlei Tang,^{ab} Zhengping Fang.^{ab*}

^aMOE Key Laboratory of Macromolecular Synthesis and Functionalization, Institute of Polymer Composites, Zhejiang University, Hangzhou 310027, China

^bLaboratory of Polymer Materials and Engineering, Ningbo Institute of Technology, Zhejiang University, Ningbo 315100, China

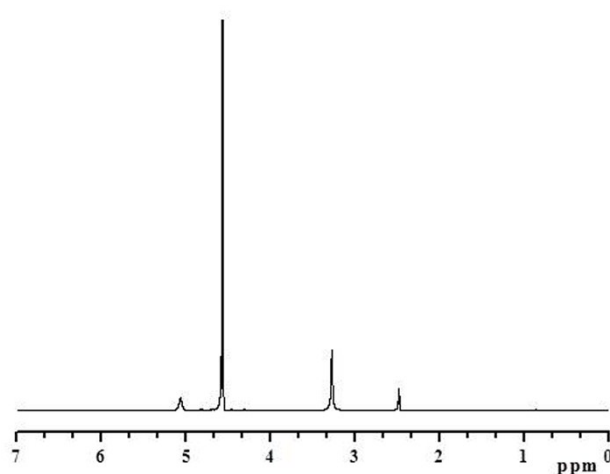


Fig. S1 ¹H NMR spectrum of PEPA

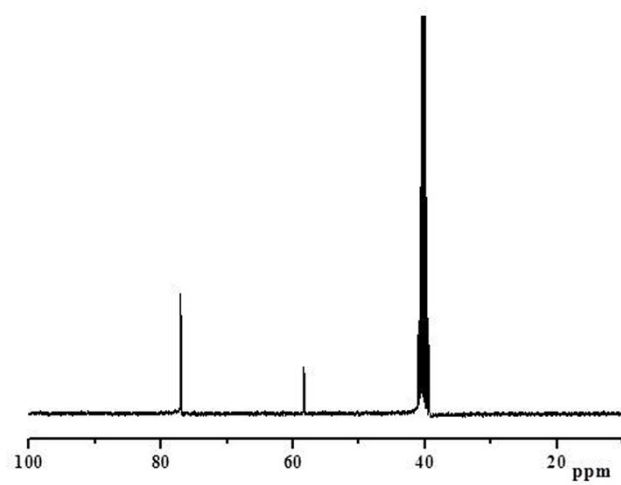


Fig. S2 ^{13}C NMR spectrum of PEPA

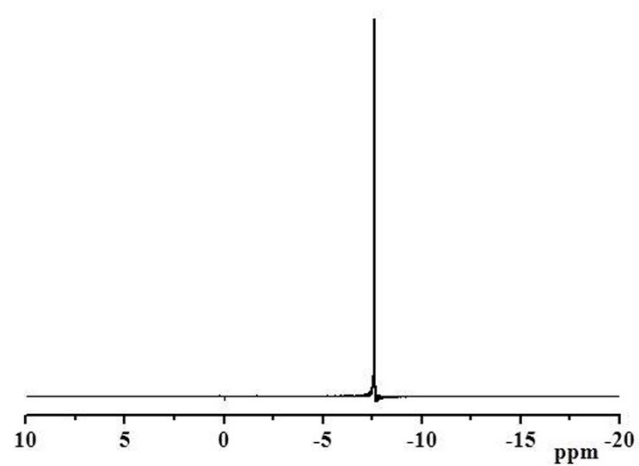


Fig. S3 ^{31}P NMR spectrum of DPM

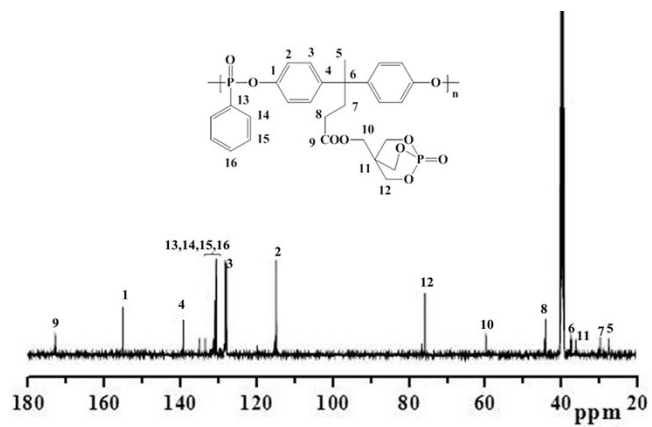


Fig. S4 ^{13}C NMR spectrum of BPPT