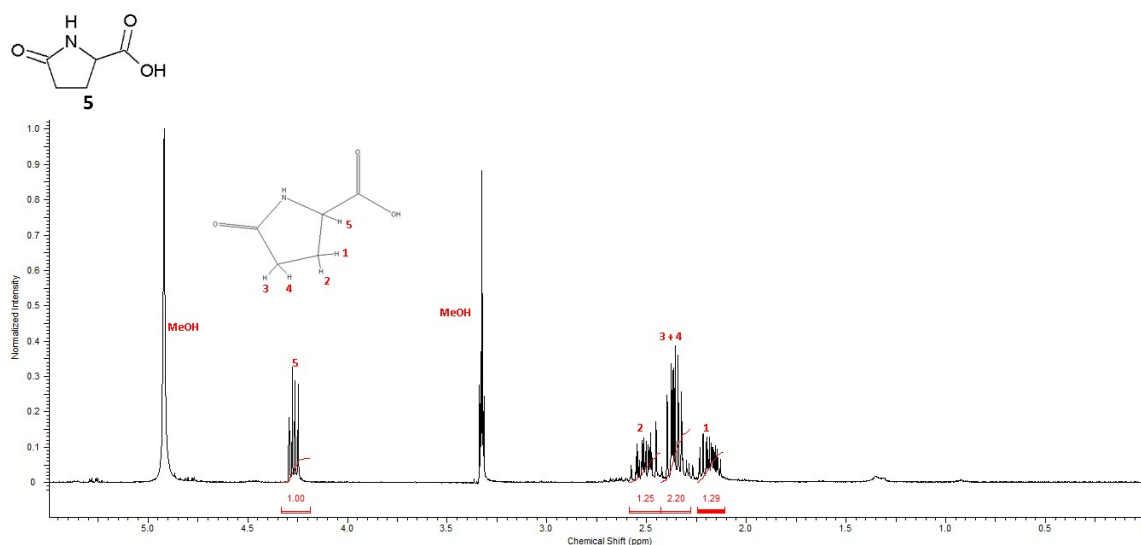


# Synthesis and characterization of alkyd resins with glutamic acid-based monomers

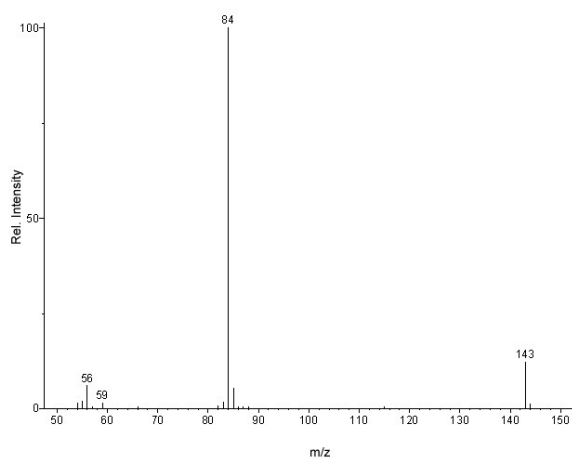
Joris Hulsbosch,<sup>a</sup> Laurens Claes,<sup>a</sup> Dries Jonckheere,<sup>a</sup> Dirk Mestach,<sup>b</sup> and Dirk E. De Vos<sup>\*a</sup>

## Supporting information

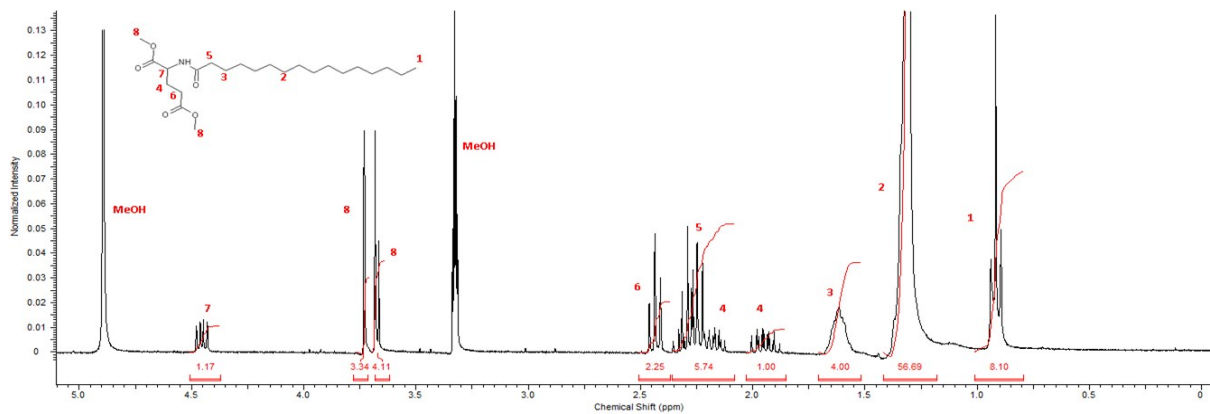
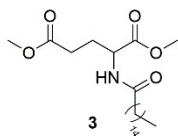
### 1. Characterization of glutamic acid-based monomers



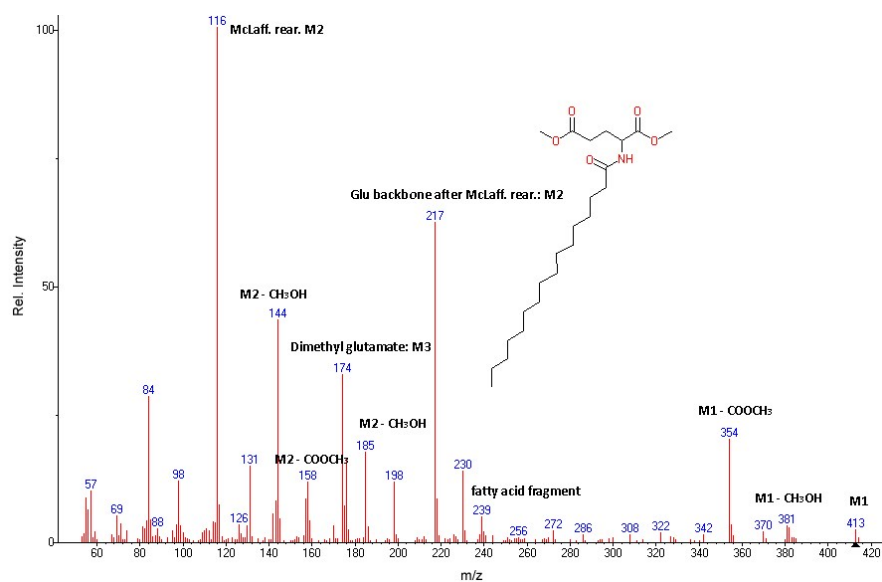
**Fig. S1** <sup>1</sup>H NMR spectrum of pyroglutamic acid (5) (5 mg sample dissolved in 0.7 ml CD<sub>3</sub>OD).



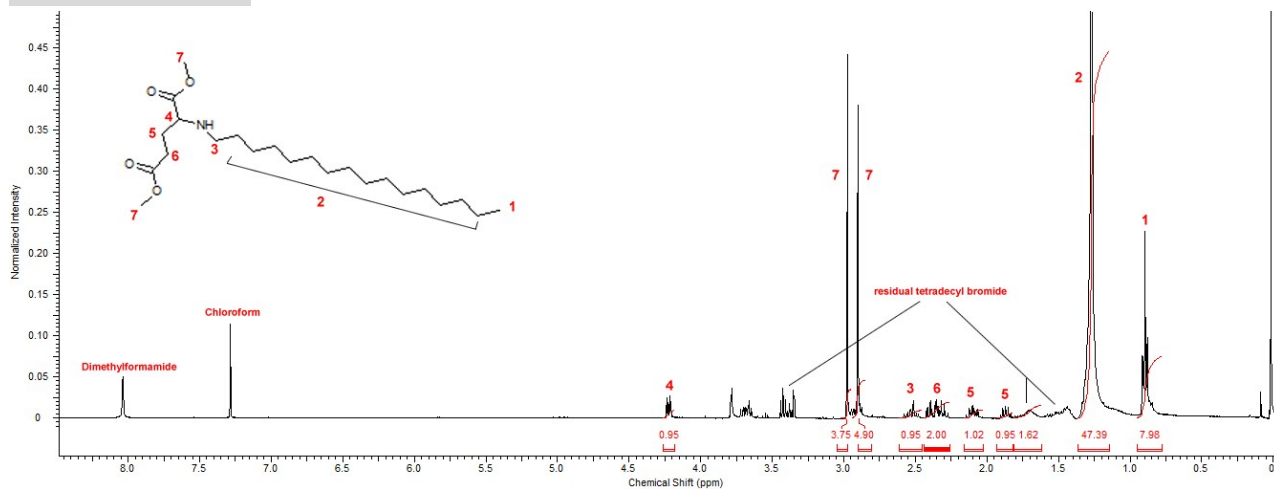
**Fig. S2** Mass spectrum of pyroglutamic acid (5).



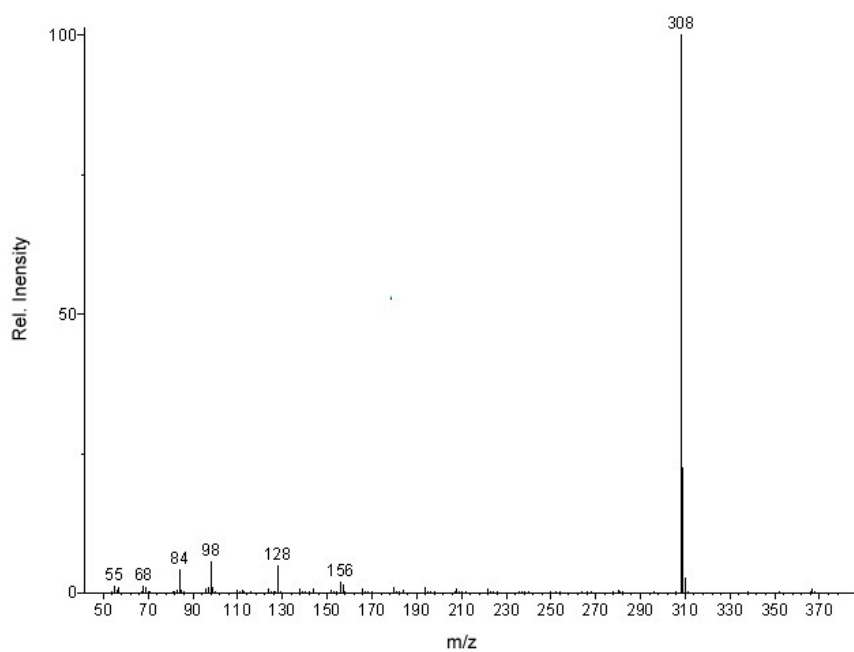
**Fig. S3**  $^1\text{H}$  NMR spectrum of *N*-palmitoylglutamic acid dimethyl ester (**3**; 5 mg sample dissolved in 0.7 ml  $\text{CDCl}_3$ ).



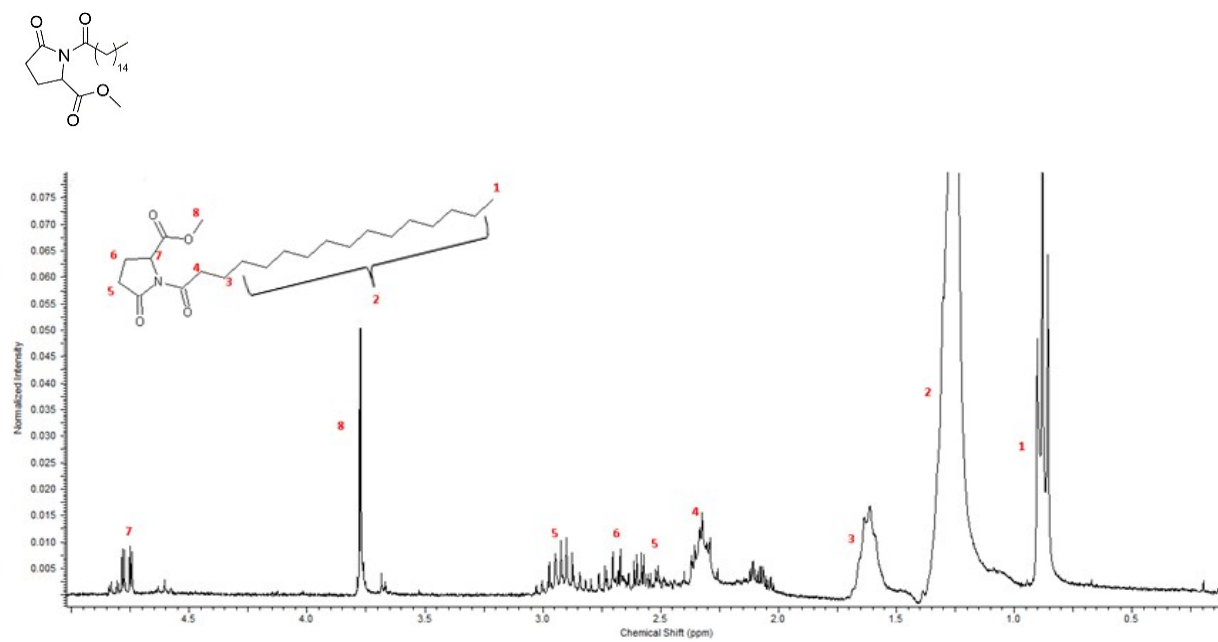
**Fig. S4** Mass spectrum of *N*-palmitoylglutamic acid dimethyl ester (**3**).



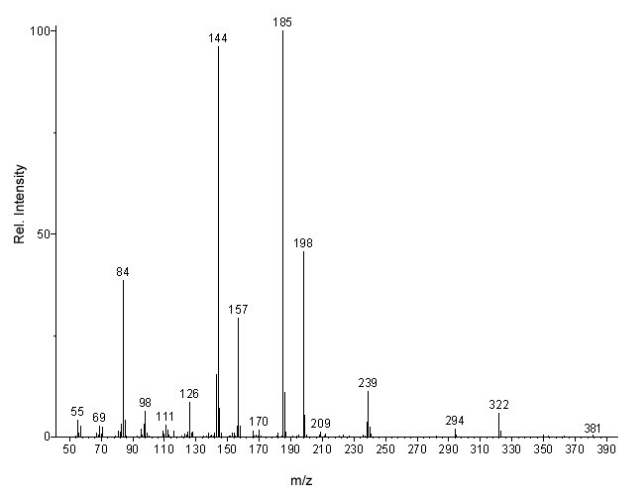
**Fig. S5**  $^1\text{H}$  NMR spectrum of *N*-hexadecylglutamic acid dimethyl ester (**4**; 5 mg sample dissolved in 0.7 ml  $\text{CDCl}_3$ ).



**Fig. S6** Mass spectrum of *N*-hexadecylglutamic acid dimethyl ester (**4**).

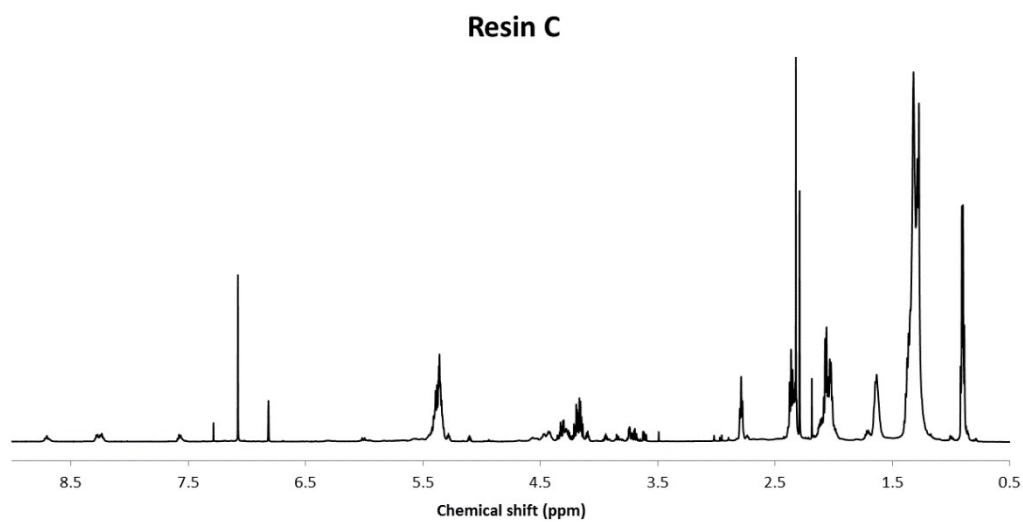


**Fig. S7**  $^1\text{H}$  NMR spectrum of *N*-palmitoylpyroglutamic acid methyl ester (5 mg sample dissolved in 0.7 ml  $\text{CDCl}_3$ ).

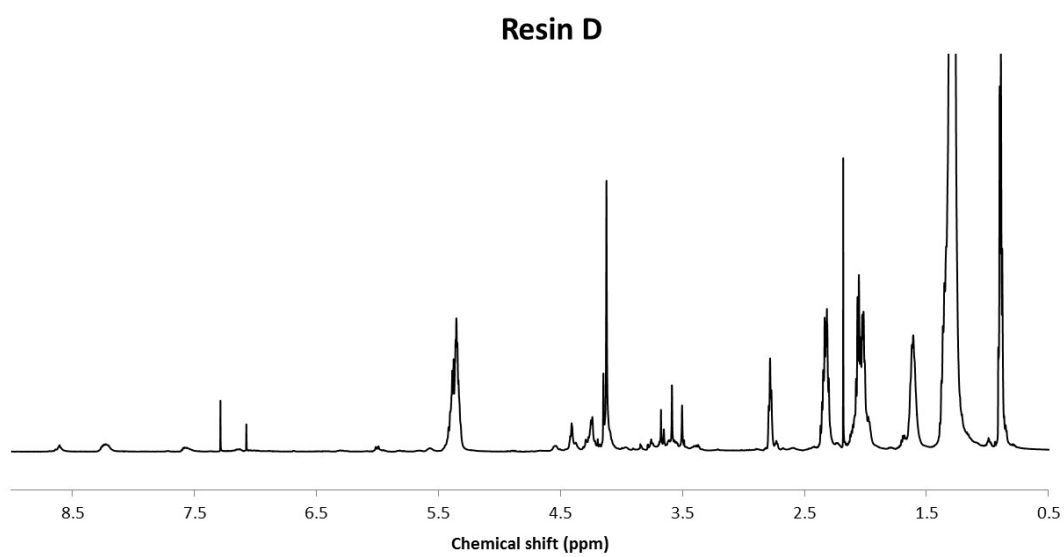


**Fig. S8** Mass spectrum of *N*-palmitoylpyroglutamic acid methyl ester.

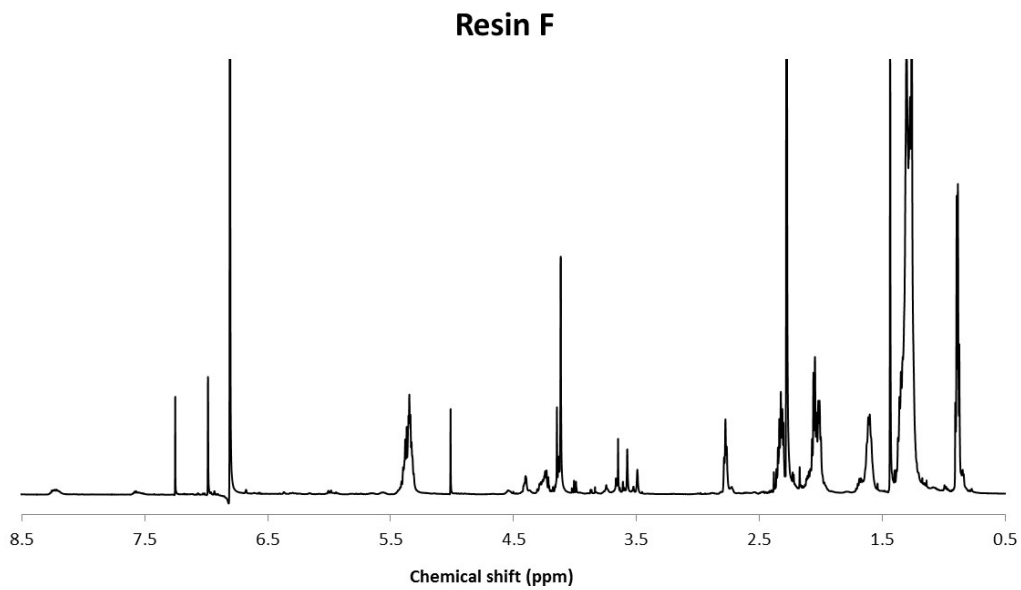
## 2. Characterization of alkyd resins



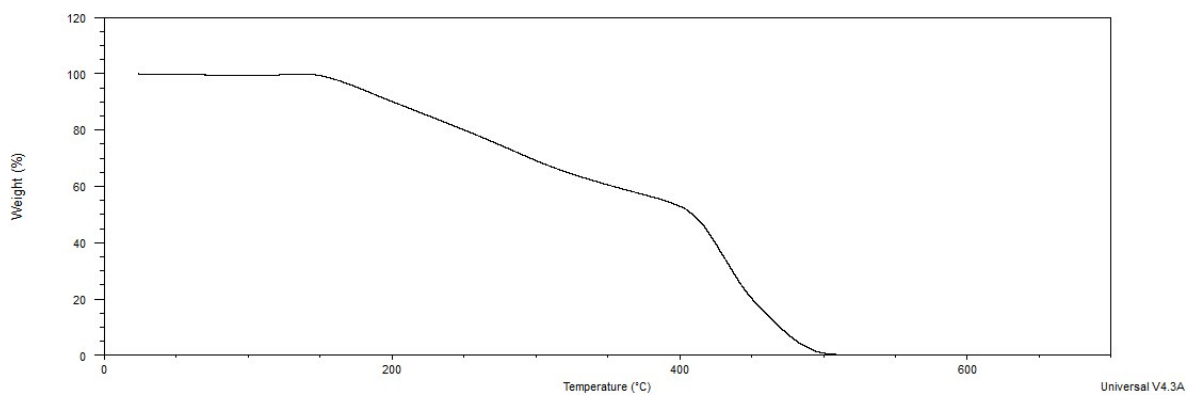
**Fig. S9** 600 MHz  $^1\text{H}$  NMR spectrum of resin C.



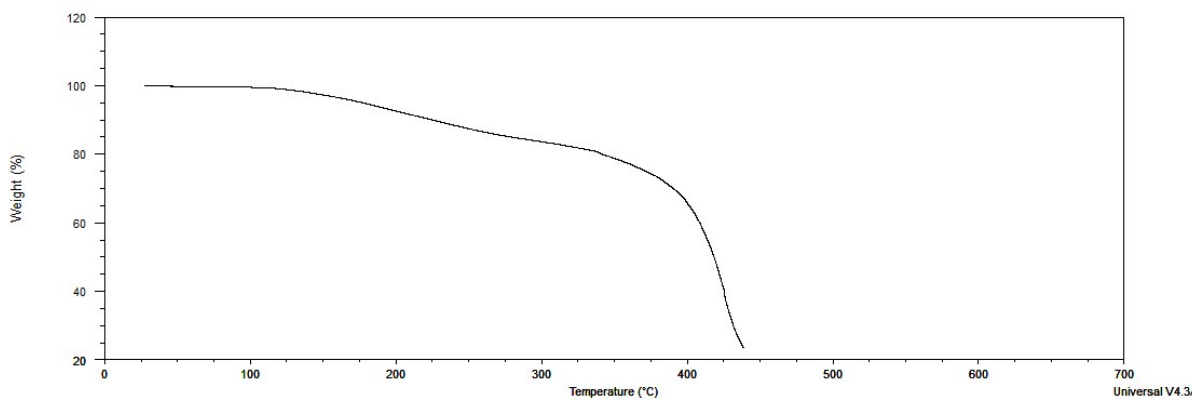
**Fig. S10** 600 MHz  $^1\text{H}$  NMR spectrum of resin D.



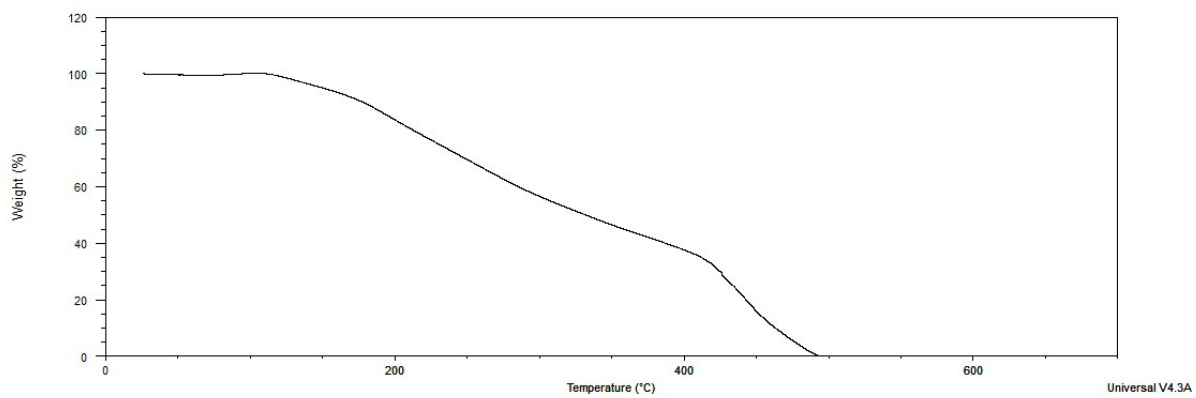
**Fig. S11** 600 MHz  $^1\text{H}$  NMR spectrum of resin F.



**Fig. S12** Thermogravimetric analysis of resin B.



**Fig. S13** Thermogravimetric analysis of resin D.



**Fig. S14** Thermogravimetric analysis of resin **G**.