

Supplementary Materials

Reprocessable Epoxy–Anhydride Resin Enabled by a Thermal-Stable Liquid Transesterification Catalyst

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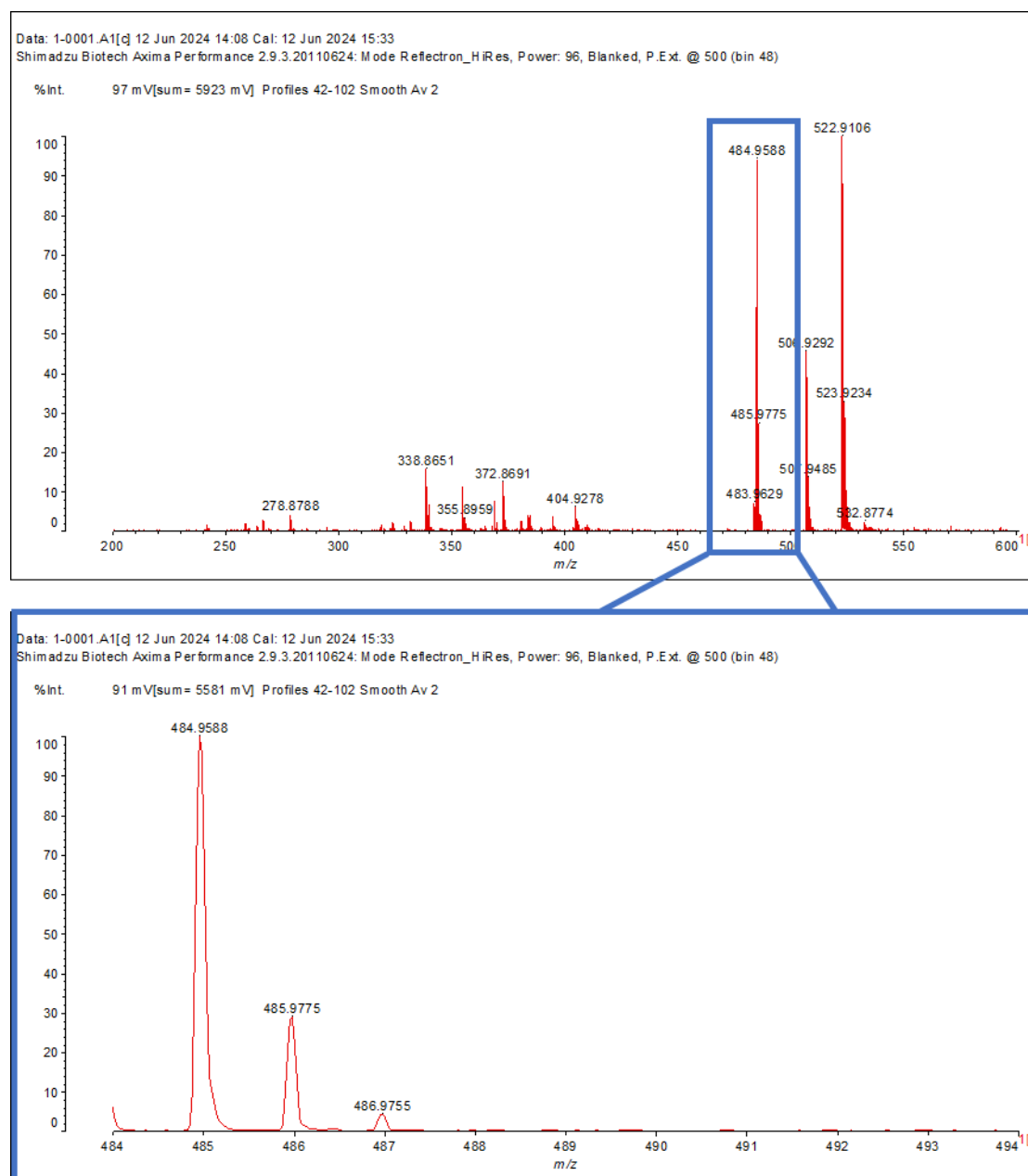


Figure S1. Mass spectrometry results of the ep-epoxy.

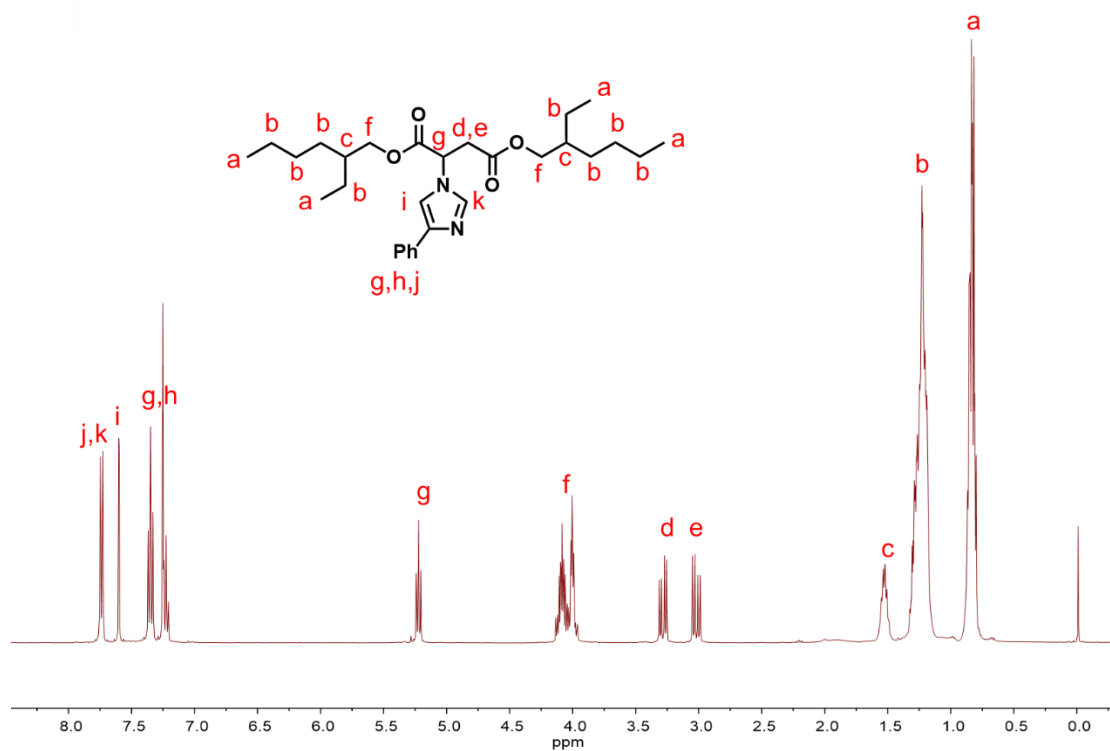


Figure S2. The chemical shifts of characteristic peaks of 1-2EH-4PI. ¹H NMR (400 MHz, CDCl₃).

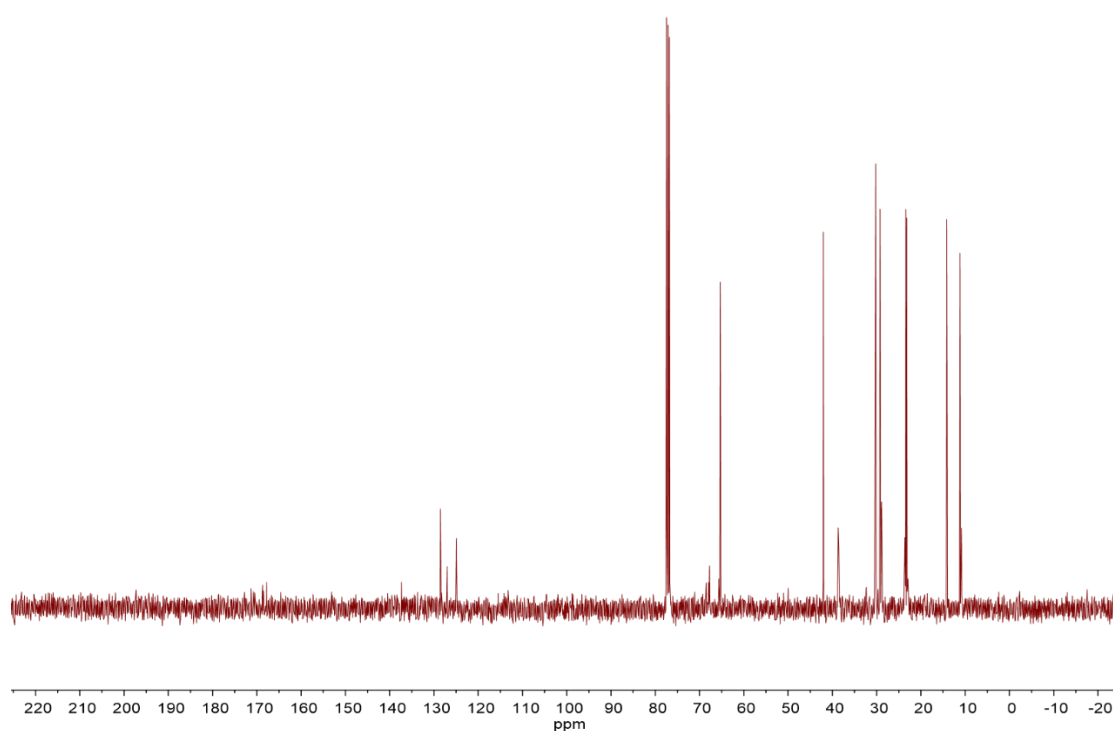


Figure S3. The chemical shifts of characteristic peaks of 1-2EH-4PI. ^{13}C NMR (400 MHz, CDCl_3).

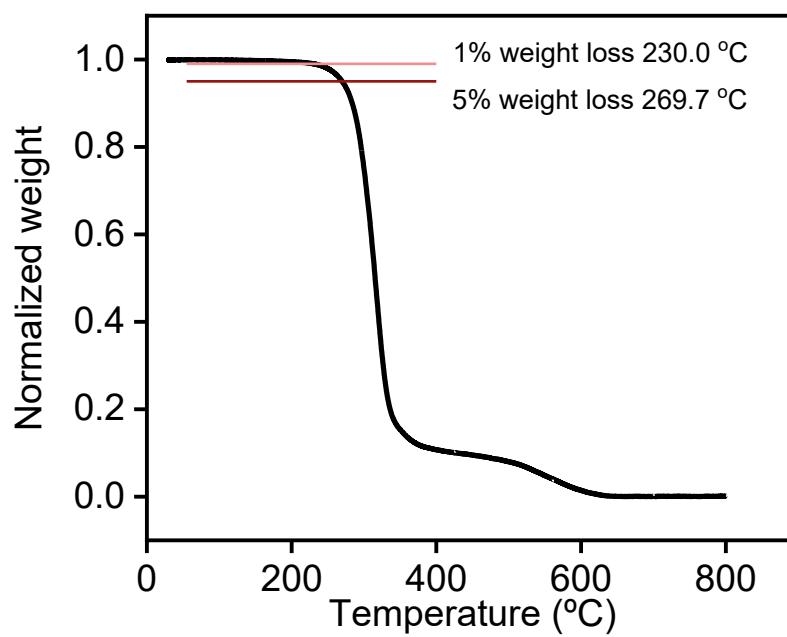


Figure S4. TGA result of the catalyst 1-2EH-4PI.

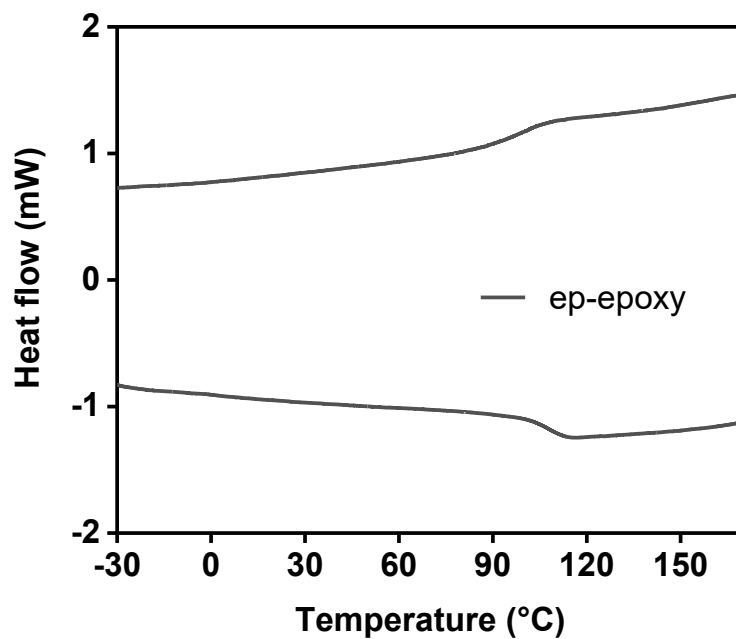


Figure S5. DSC curve of the ep-epoxy.

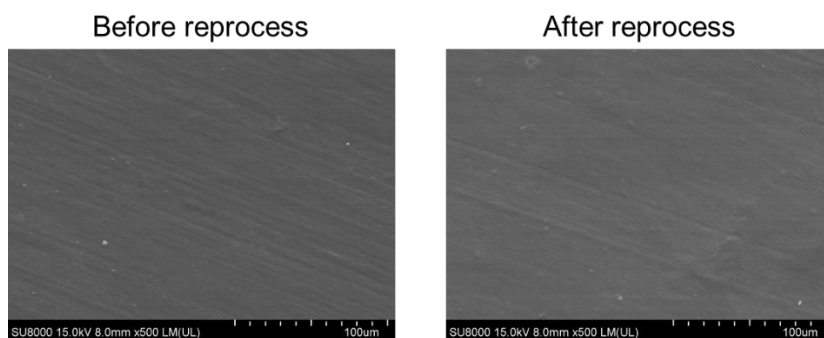


Figure S6. SEM images of the ep-epoxy resin before and after reprocessing. The results showed the appearance of samples before and after reprocessing were similar, indicating the sample was successfully thermal recycled.

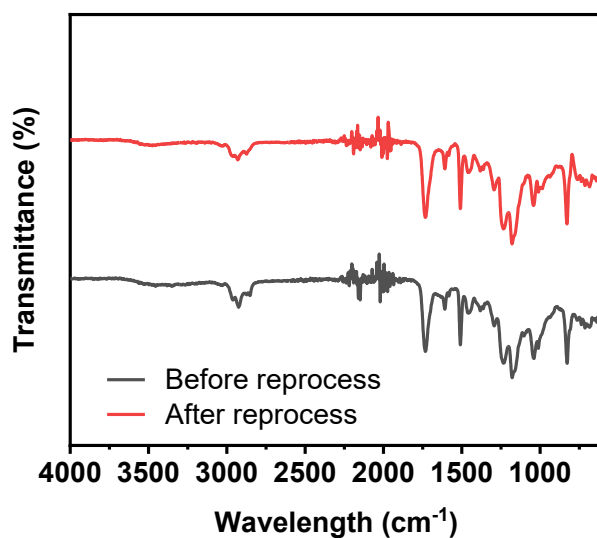


Figure S7. IR spectra of the ep-epoxy resin before and after reprocessing.

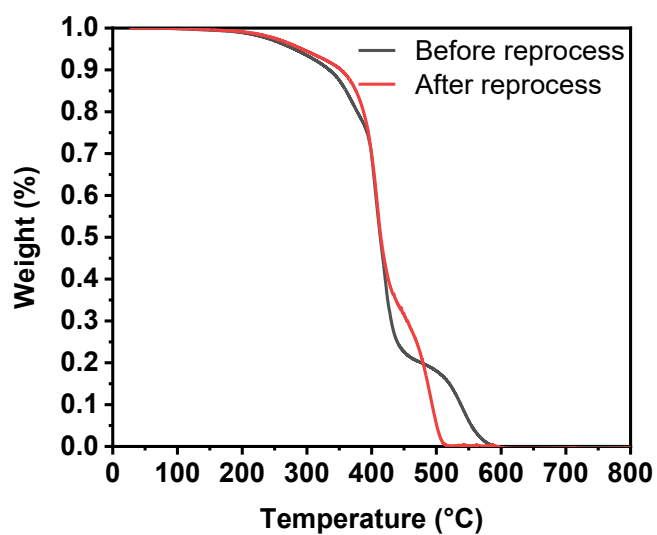


Figure S8. TGA curves of the ep-epoxy resin before and after reprocessing. The curves showed similar 1% weight loss of samples before and after reprocessing (189 °C and 196°C, respectively).

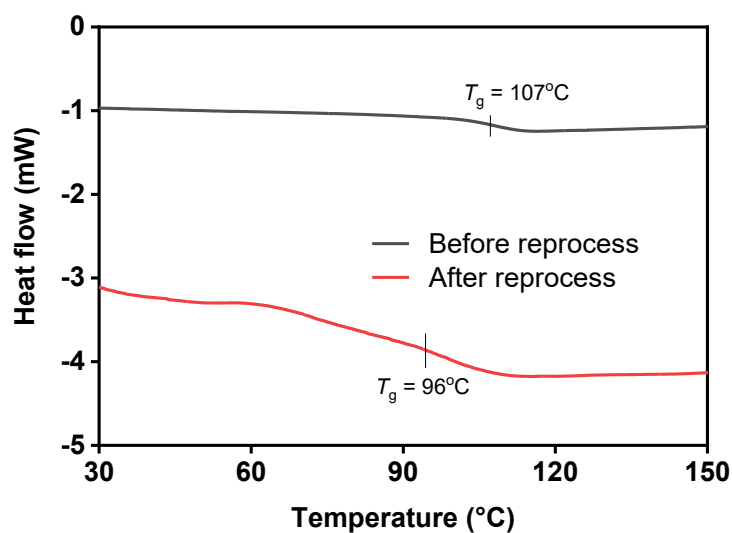


Figure S9. DSC curves of the ep-epoxy resin before and after reprocessing. The curves showed the glass transition temperature of samples before and after reprocessing were similar (107 °C and 96 °C, respectively).

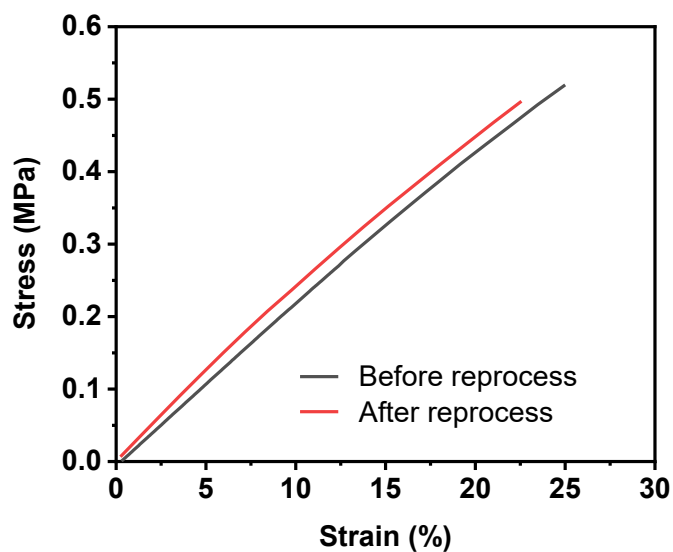


Figure S10. Tensile curves of the ep-epoxy resin before and after reprocessing. This test was conduct at 140°C since the sample was too brittle below T_g , making it difficult to test.