

Supporting Information for

Production of Levoglucosenone and Dihydrolevoglucosenone by Catalytic Reforming of Volatiles from Cellulose Pyrolysis Using Supported Ionic Liquid Phase

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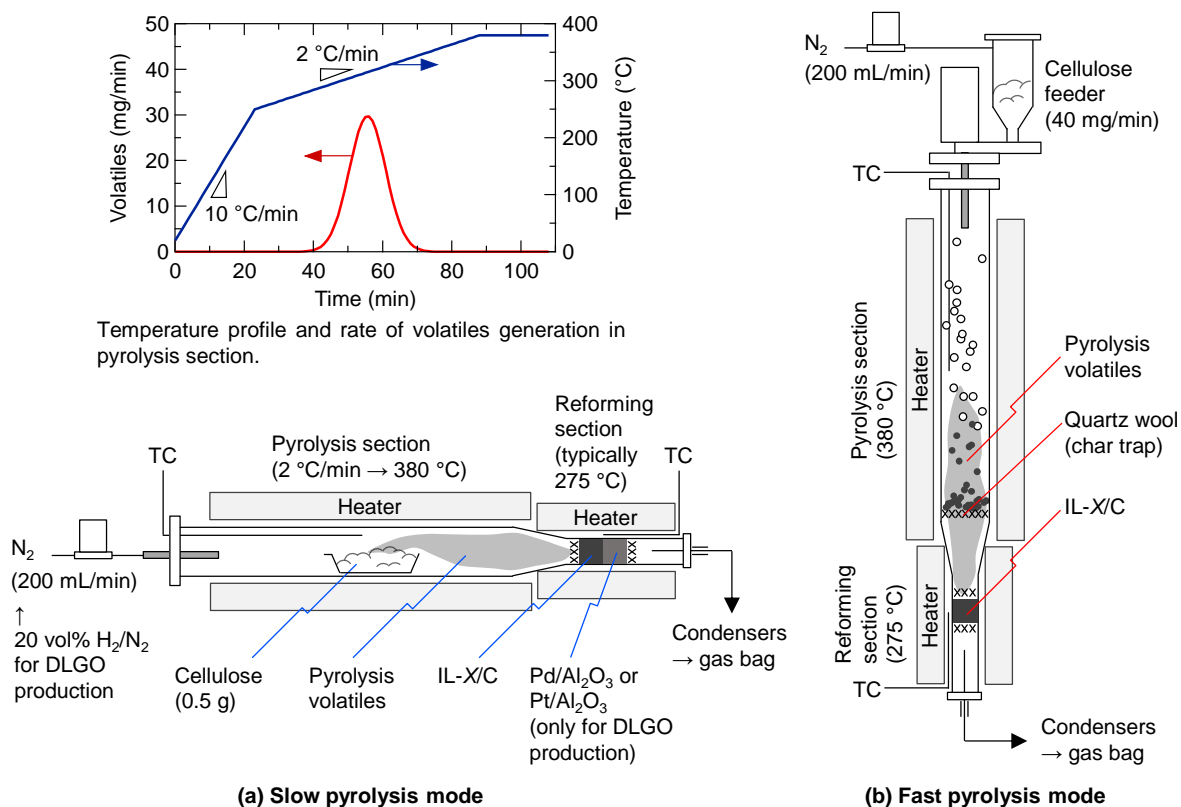
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* A quartz tube was used for both slow and fast pyrolysis modes. The inner diameters were 210 mm and 65 mm at pyrolysis and reforming sections, respectively.

Figure S1. Schematics of reaction systems for catalytic reforming of volatiles from cellulose pyrolysis: (a) slow pyrolysis mode and (b) fast pyrolysis mode.

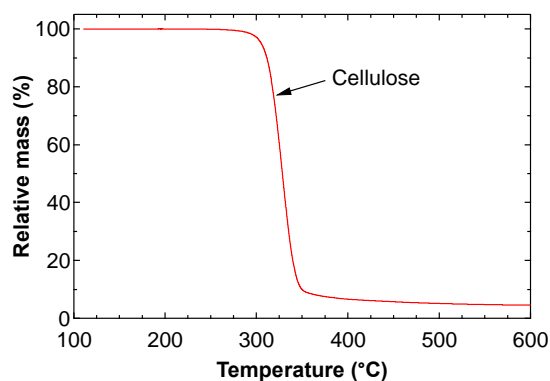


Figure S2. TG curve of cellulose pyrolysis: TGA under N₂ flow with 5 °C/min heating rate.

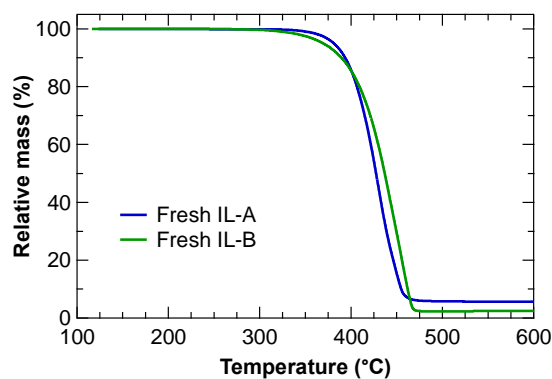


Figure S3. Comparison of TG curves between IL-A and IL-B: TGA under N₂ flow with 5 °C/min heating rate.

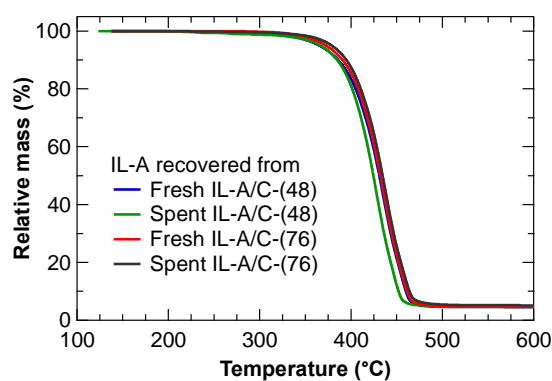


Figure S4. TG curves of IL-A recovered from fresh and spent IL-A/C: TGA under N₂ flow with 5 °C/min heating rate.

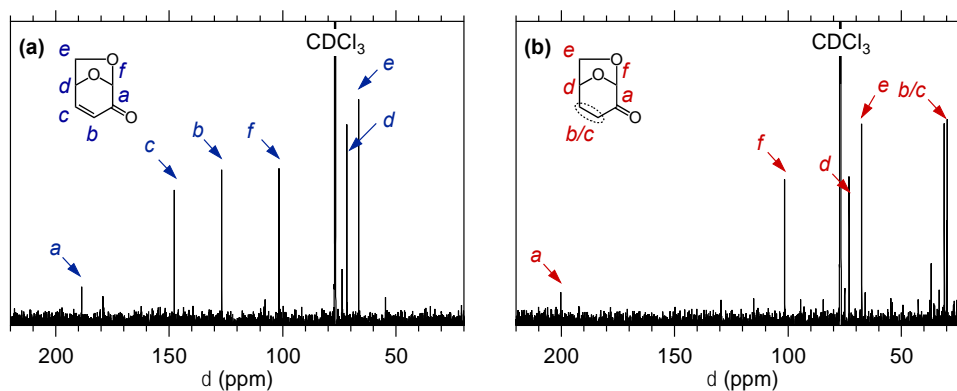


Figure S5. ¹³C NMR spectrum of liquid product (CDCl₃ soluble portion) from (a) entry 2 and (b) entry 15. The spectrum in (b) is consistent with that of DLGO reported in the work by Sherwood et al. (*Chem. Commun.* **2014**, 50, 9650–9652).

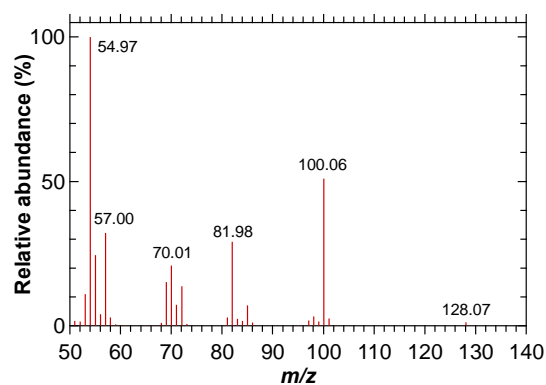


Figure S6. MS spectrum of the main peak of GC-MS chromatogram (c) in **Figure 2** at 32.0 min, which corresponds to DLGO.