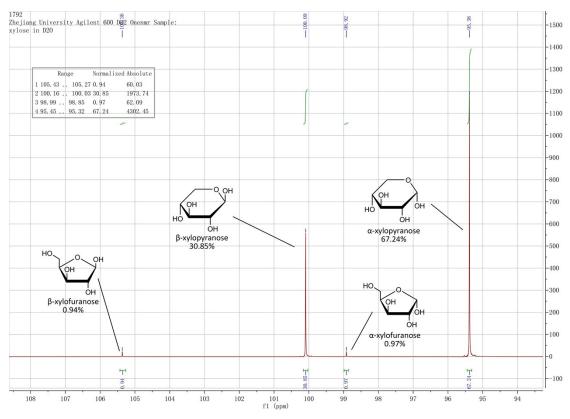
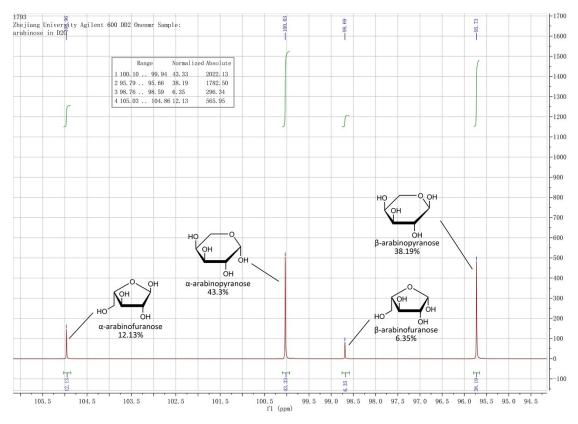
Figures

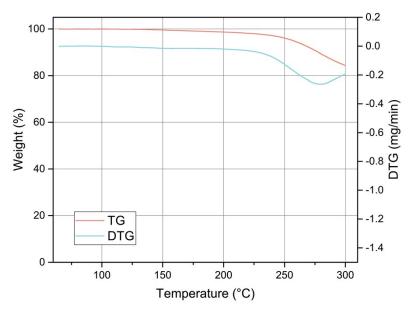


Electronic supplementary information

1. ¹³C-NMR spectrum for D-[1-13C]xylose dissolved in GVL-water (4:1) solvent



2. ¹³C-NMR spectrum for D-[1-13C]arabinose dissolved in GVL-water (4:1) solvent



3. TG and DTG curves for [bmim]Cl-AlCl $_3$

Thermogravimetric analysis for [bmim]CI-AICl₃

Thermogravimetric analysis was carried out in a thermogravimetric analyzer (STA 449F5, Netzsch, Germany) from 65 °C to 300 °C with a heating rate of 10 °C min⁻¹. Air with a flow rate of 50 mL min⁻¹ was used as the carrier gas. 10 mg sample was added into the crucible and was preheated to 110 °C and remained for 10 min in order to remove the moisture.