

Supporting information

A zwitterionic liquid vs an ionic liquid analogue upon biomass

pretreatment ability

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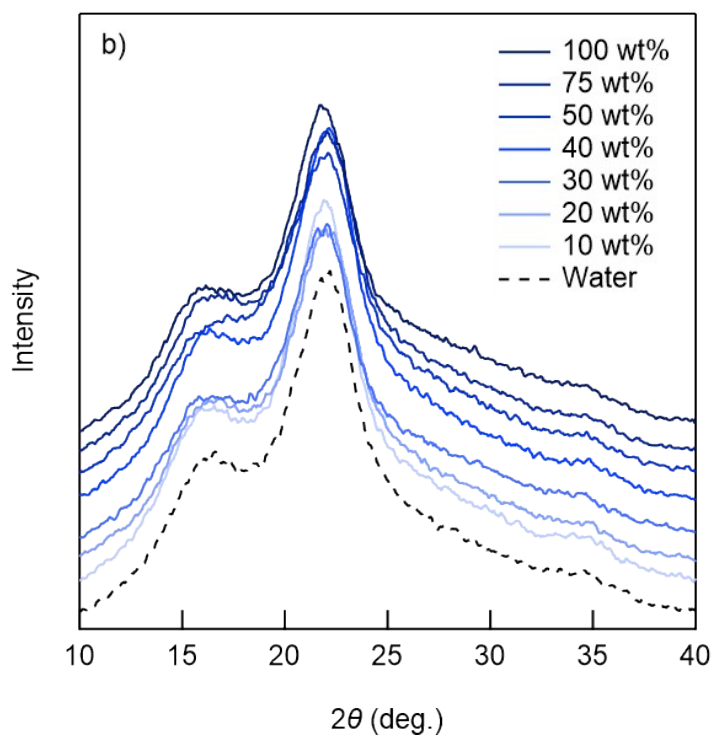
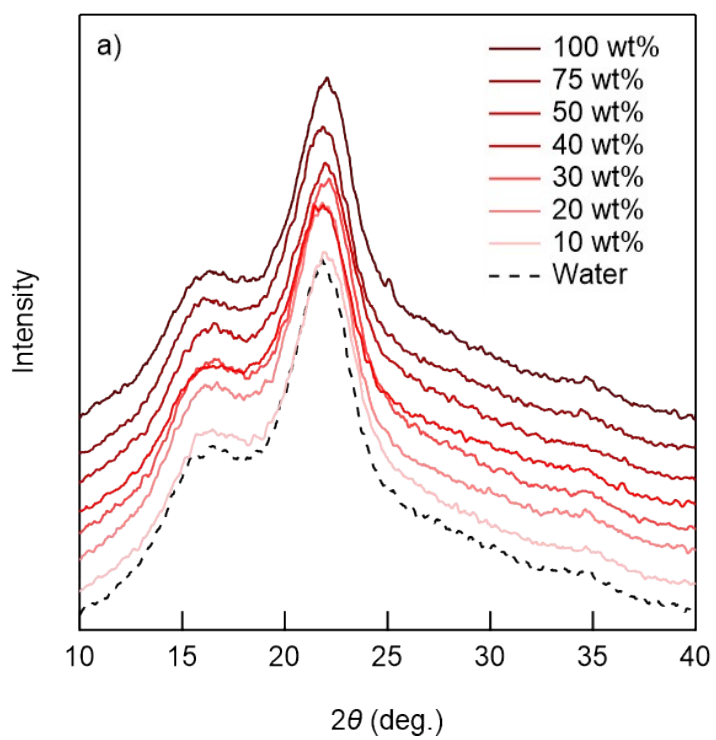


Fig. S1 XRD patterns of bagasse pretreated by a) OE₂imC₃C and b) [C₂mim]OAc at 50 °C.

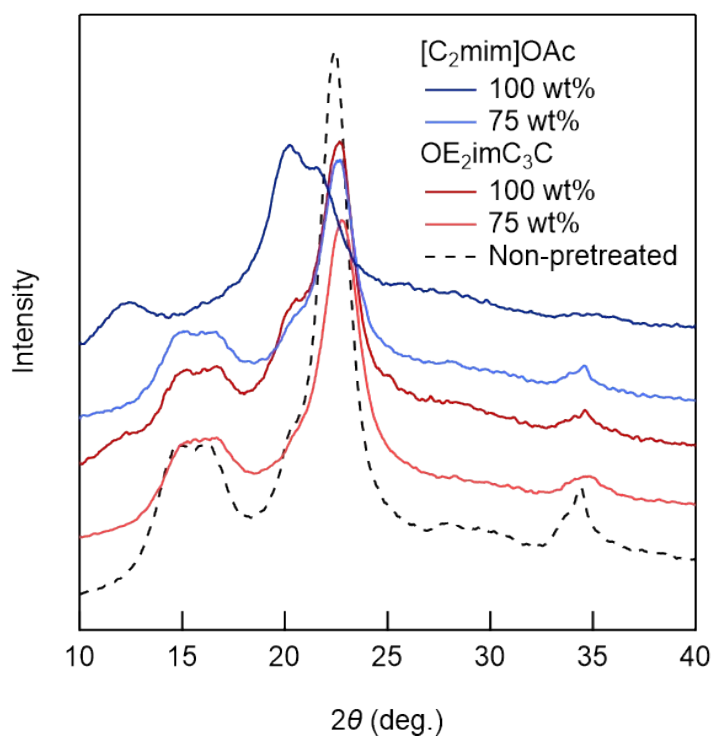


Fig. S2 XRD patterns of Avicel pretreated by OE₂imC₃C and [C₂mim]OAc at 50 °C.

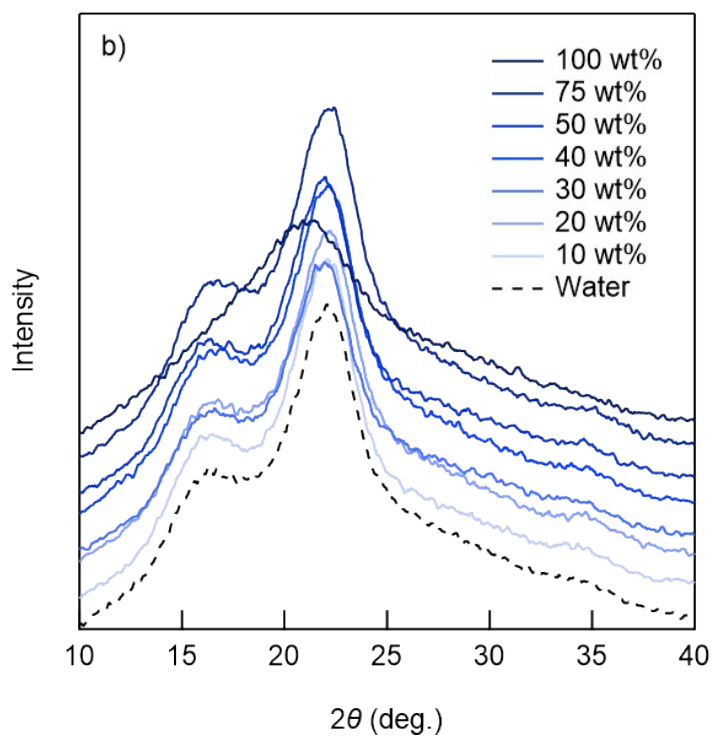
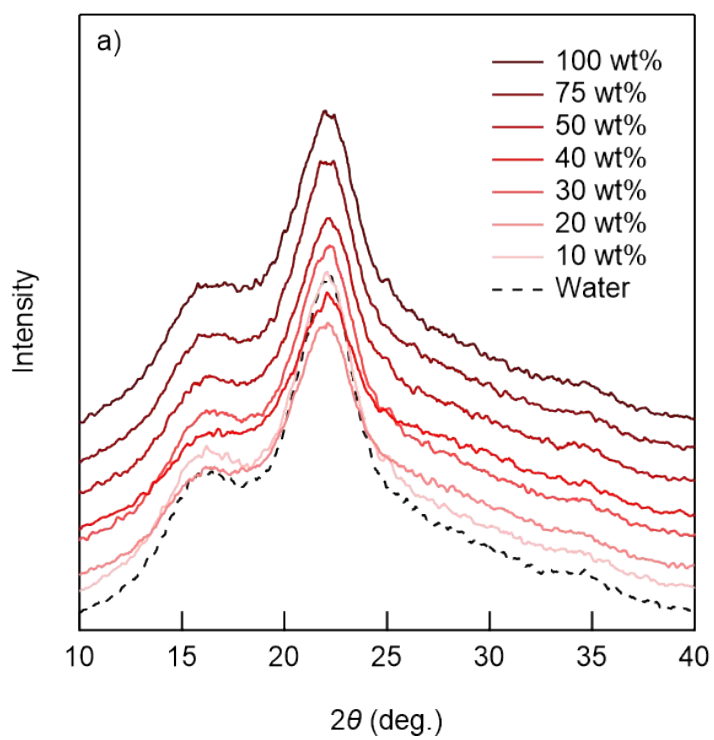


Fig. S3 XRD patterns of bagasse pretreated by a) OE₂imC₃C and b) [C₂mim]OAc at 90 °C.

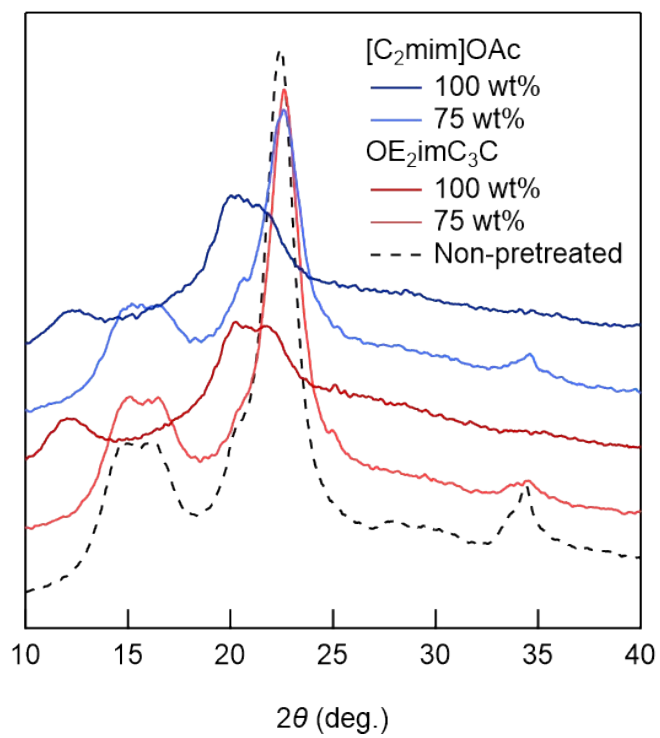


Fig. S4 XRD patterns of Avicel pretreated by OE₂imC₃C and [C₂mim]OAc at 90 °C.

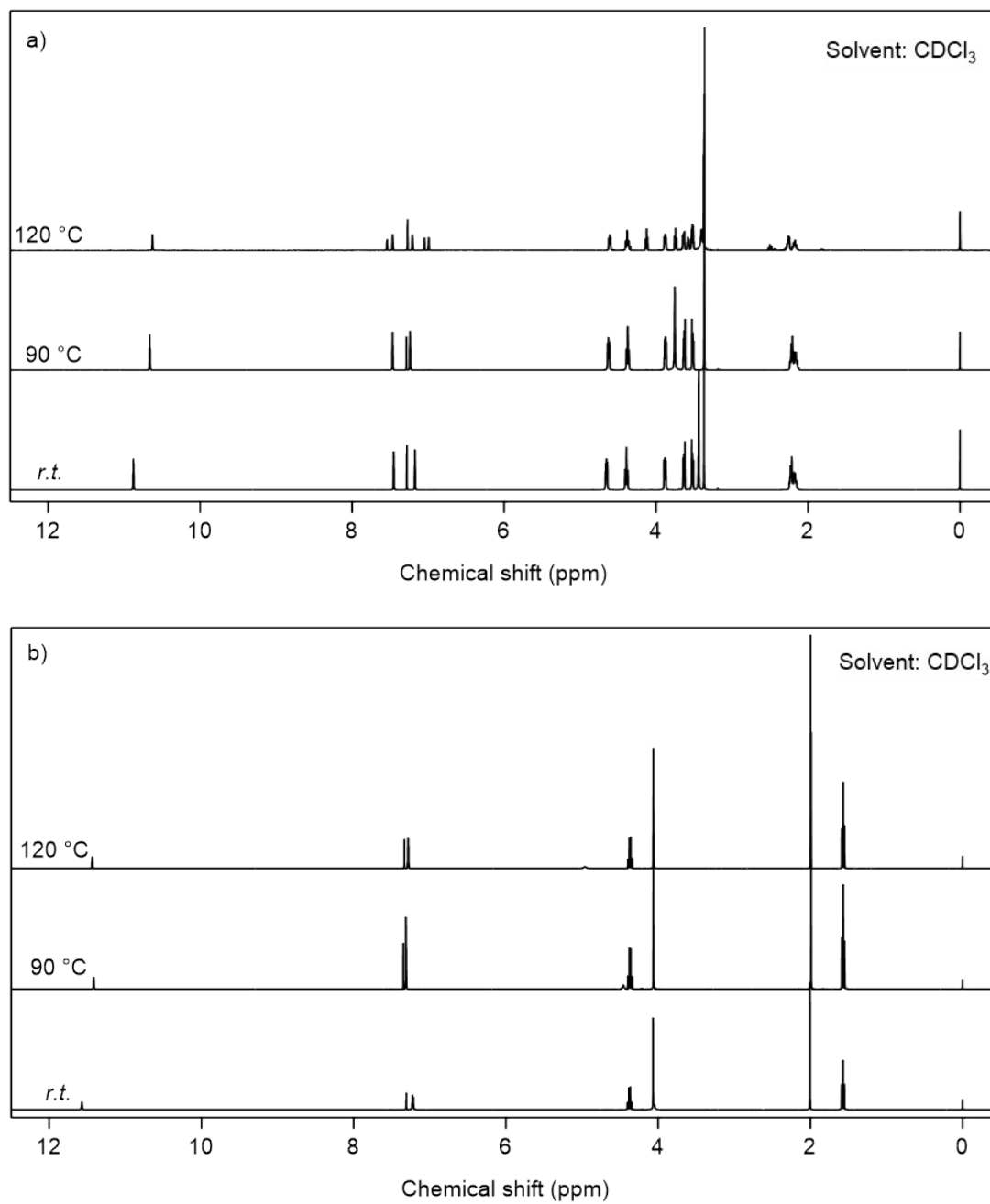


Fig. S5 ¹H NMR spectra of a) OE₂imC₃C and b) [C₂mim]OAc after pretreatment for 24 h at 90, 120 °C.

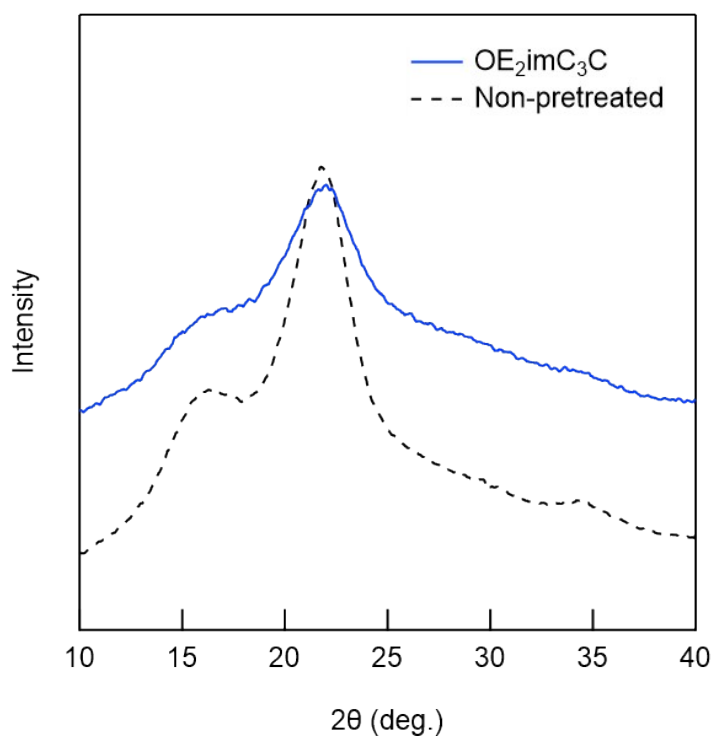


Fig. S6 XRD patterns of bagasse pretreated by OE₂imC₃C at 120 °C.

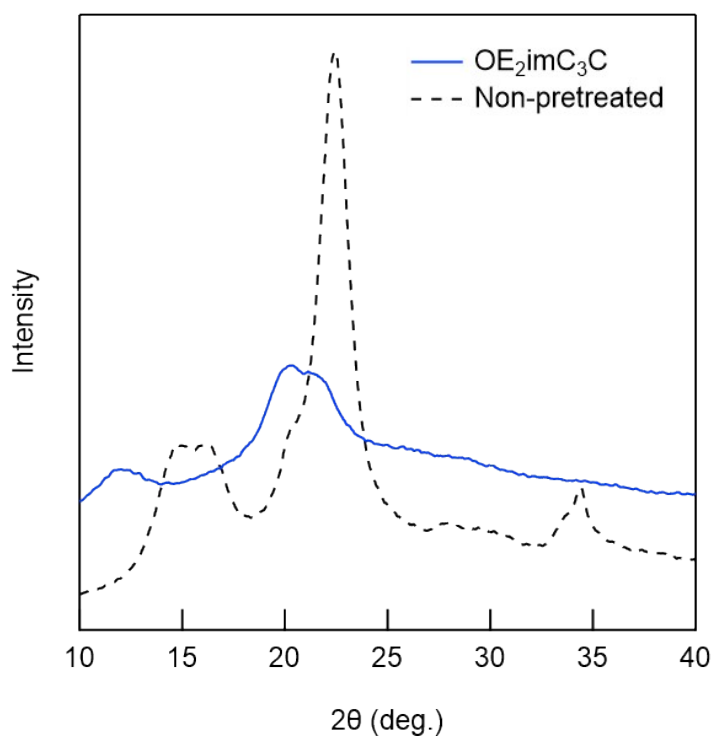


Fig. S7 XRD patterns of Avicel pretreated by OE₂imC₃C at 120 °C.

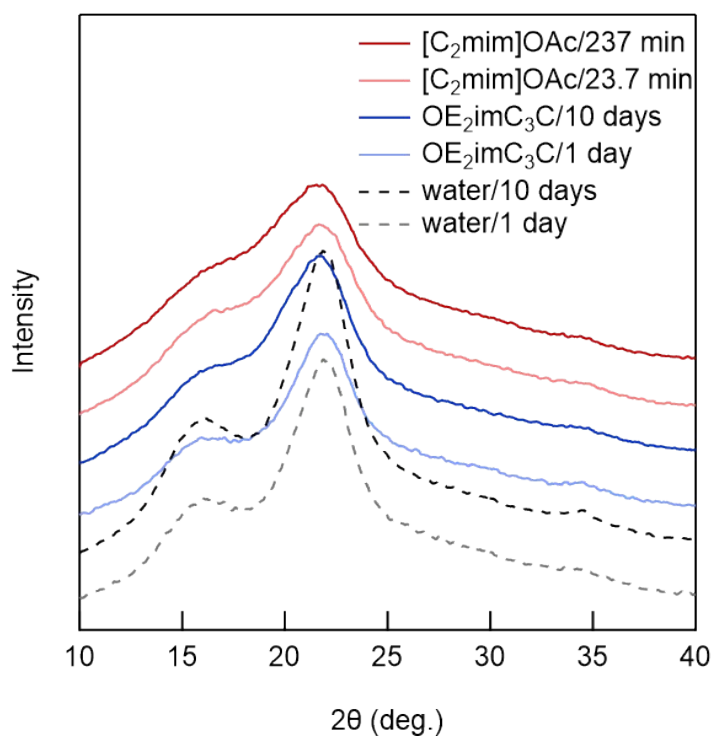


Fig. S8 XRD patterns of bagasse pretreated by OE₂imC₃C and [C₂mim]OAc at 90 °C.

Table S1 Calculated viscosity of OE₂imC₃C and [C₂mim]OAc at 90 °C.

	Viscosity (mPa s)*
OE ₂ imC ₃ C	510
[C ₂ mim]OAc	8.4

* The original data were reported in the literature.¹

Reference

1. R. Kadokawa, T. Endo, Y. Yasaka, K. Ninomiya, K. Takahashi and K. Kuroda, *ACS Sustainable Chemistry & Engineering*, 2021, **9**, 8686-8691.