materials

MDPI

Supplementary Materials

Nanocomposite Polymeric Materials Based on Eucalyptus Lignoboost® Kraft Lignin for Liquid Sensing Applications

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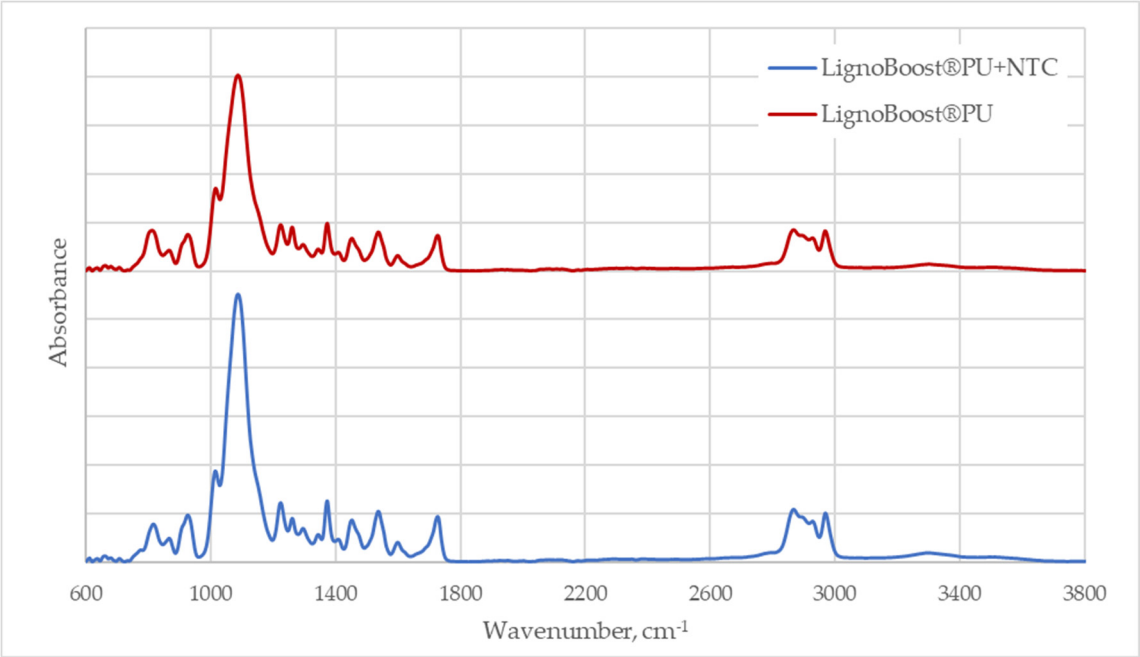

Wavenumber, cm^{-1}	Band assignment
2970, 2916 and 2868	CH stretching (symmetric and asymmetric) in CH_3 and CH_2
1733	C=O stretching (urethane group)
1536	NH bend (secondary amine in urethane group)
1372	O-CO stretching (urethane group)
1090	C-O vibration (polyether bridges)

Figure S1. FT-MIR spectra of LignoBoost® kraft lignin-based polymers undoped (LignoBoost®PU) and doped with 1.4% (w/w) MWCNTs(LignoBoost®PU + MWNTC).

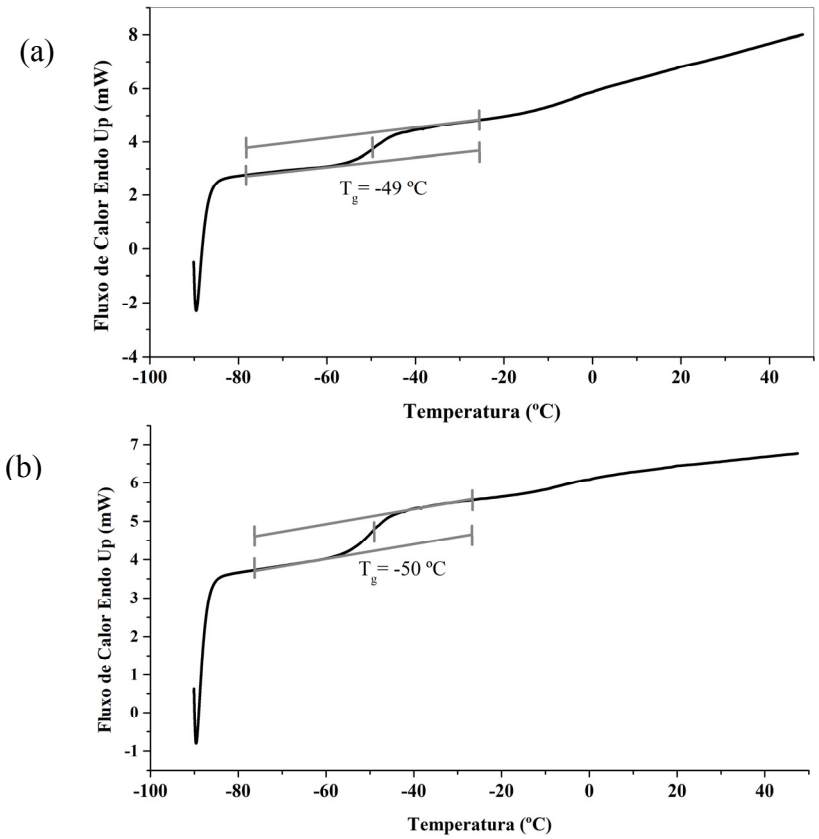

Figure S2. DSC curves of LignoBoost® kraft lignin-based polyurethane undoped (**a**) and doped with 1.4% (w/w) MWCNTs (**b**).

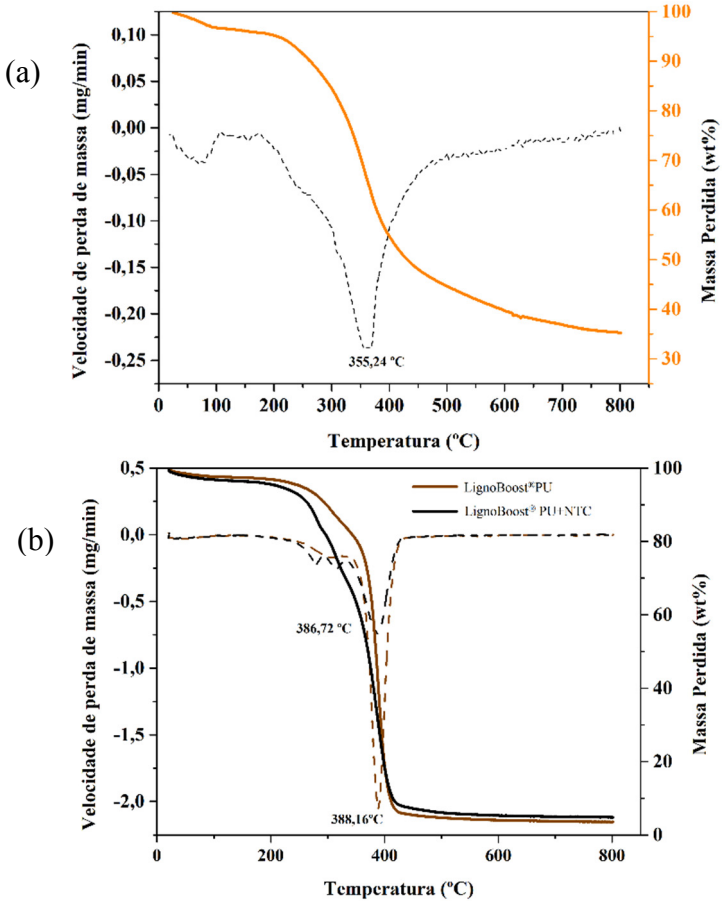

Figure S3. TGA curves of LignoBoost® kraft lignin (**a**) and LignoBoost® kraft lignin-based polyurethane undoped and doped with 1.4% (w/w) MWCNTs (**b**).

Table S1. Comparison of the performance characteristics of some copper ion sensors based on organic ionophores reported in the literature and developed in this work.

Slope, mV/pCu	Detection Limit, mol·L^{-1}	Linear Range, mol·L^{-1}	Ref.
28.7	1×10^{-6}	1.0×10^{-6}–1.0×10^{-2}	1
28.3	8.3×10^{-7}	1.0×10^{-6}–1.0×10^{-1}	2
28.8	6.3×10^{-7}	2×10^{-6}–5×10^{-3}	3
34.2	7×10^{-6}	8×10^{-6}–1.0×10^{-2}	4
29.3	4×10^{-6}	4.4×10^{-6}–1.0×10^{-1}	5
32	6×10^{-6}	8×10^{-6}–1.0×10^{-3}	This work

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