Synthesis of high molecular weight poly(ricinoleic acid) *via* a direct solution polycondensation in ionic liquids

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Figure S1 ¹H NMR spectrum of pure MR, MR+IL (1:1 in mole), MR+TBT (1:1 in mole), and MR +IL+TBT (1:1:1 in mole) (CDCl₃, 400 MHz).



Figure S2. The color contrast of the PRA obtained at different temperatures.



Figure S3. Phase separation between ionic liquid and PRA after polymerization

for 20 h.



Figure S4. ¹H NMR spectra of fresh (a) and recovered (b) [OdMIM][NTf₂].



Figure S5. ¹H NMR spectrum of the polymerization mixture of PRA and [OdMIM][NTf₂] after polymerization for 72 h at 180 °C.



Figure S6. DSC curve of PRA ($M_w = 122$ kDa, polymerization conditions: MR: [OdMIM][NTf₂] = 4:1 in mole, 1 wt% TBT as the catalyst, 180°C, 72 h)



Figure S7. Thermogravimetric curves of the pure [OdMIM][NTf₂] (red line) and the polymerization mixture (black line) (Polymerization conditions: MR: [OdMIM][NTf₂] = 4:1 in mole, 1 wt% TBT as the catalyst, 180°C, 72 h)