

Supporting Information

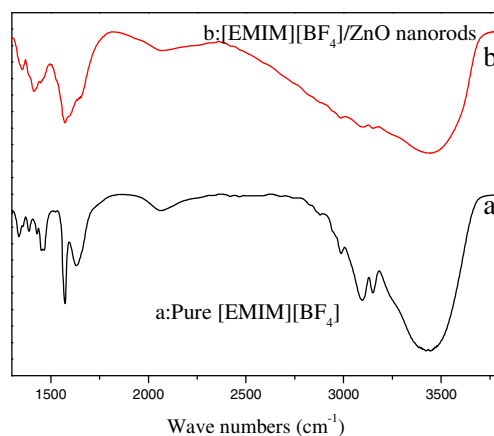


Figure S1. FT-IR spectra of (a) the pure [EMIM][BF₄] and (b) the ZnO nanorods/[EMIM][BF₄]

Table S1. Frequencies of FTIR Absorption Bands for the Pure [EMIM][BF₄] and [EMIM][BF₄]/ZnO nanorods

ionic liquid [EMIM][BF ₄] (frequencies of absorption bands (cm ⁻¹))	assignments	[EMIM][BF ₄]/ZnO nanorods (frequencies of absorption bands (cm ⁻¹))	assignments
3149, 3094 (Double peaks)	C(2)-H of imidazole ring stretching vibration	3135, 3085 (round and weak peaks)	the peaks of 3149 and 3094 cm ⁻¹ become round and weak, attribute to the hydrogen bonds, formed between the hydrogen atom at position-2 of the imidazole ring and the ZnO nuclei.
1638	C(2)=C(3) stretching vibration	1637	C(2)=C(3) stretching vibration
1565, 1459	imidazole ring skeleton stretching vibration	1571, 1458	imidazole ring skeleton stretching vibration

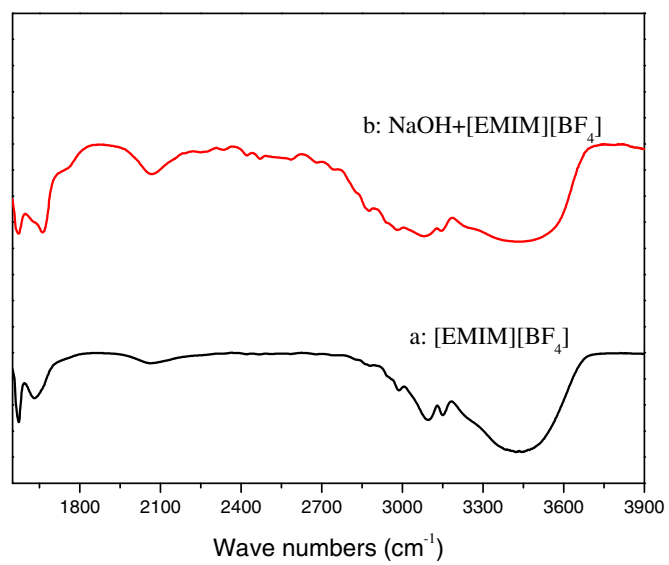


Figure S2. FT-IR spectra of (a) the pure [EMIM][BF₄] and (b) NaOH +[EMIM][BF₄]