

Two stage conversions of high free fatty acid *Jatropha curcas* oil to biodiesel using Brønsted acidic ionic liquid and KOH as catalysts.

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Fig S1. ¹HNMR spectrum of Zwitterion.

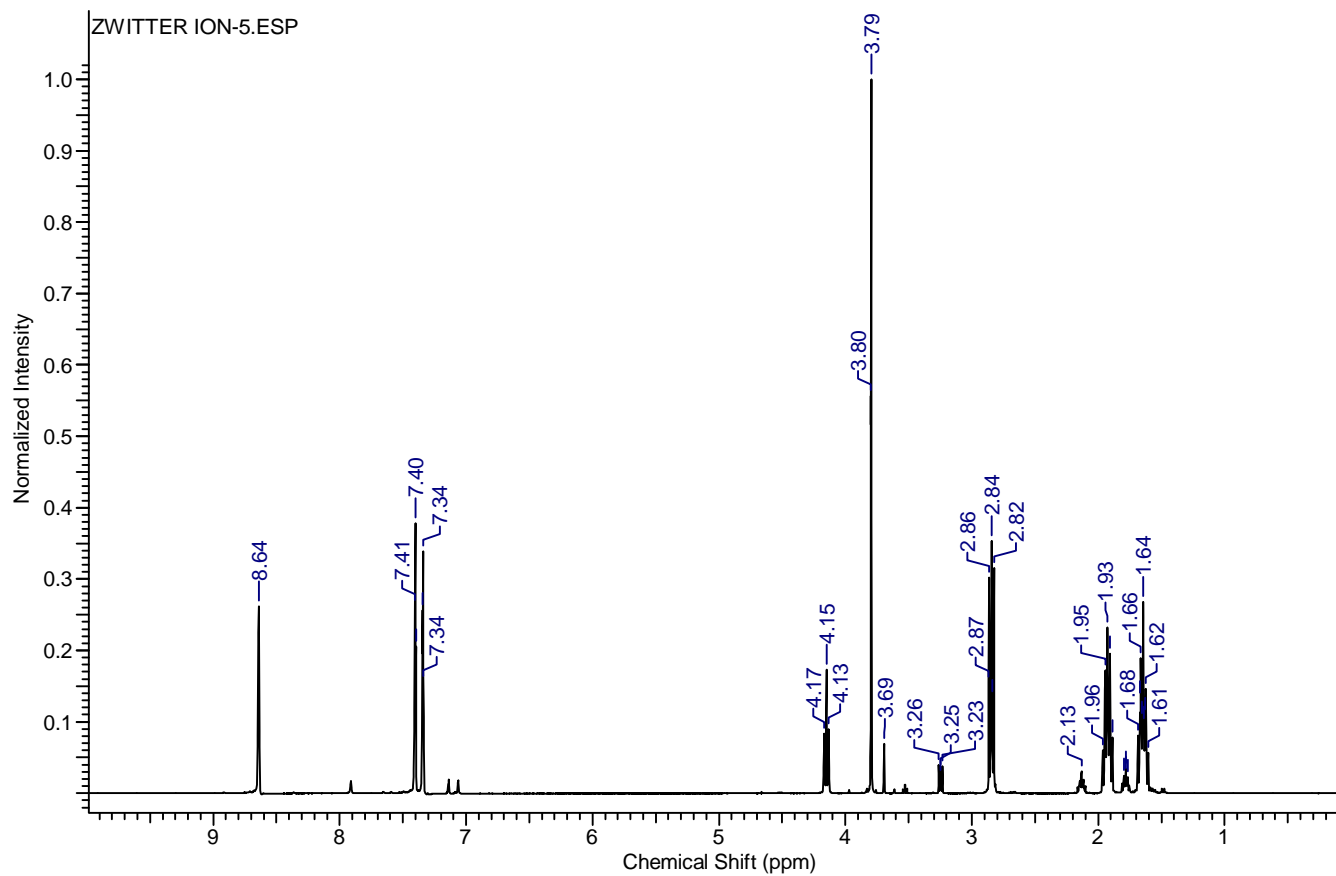


Fig. S2. ^{13}C NMR of Zwitterion

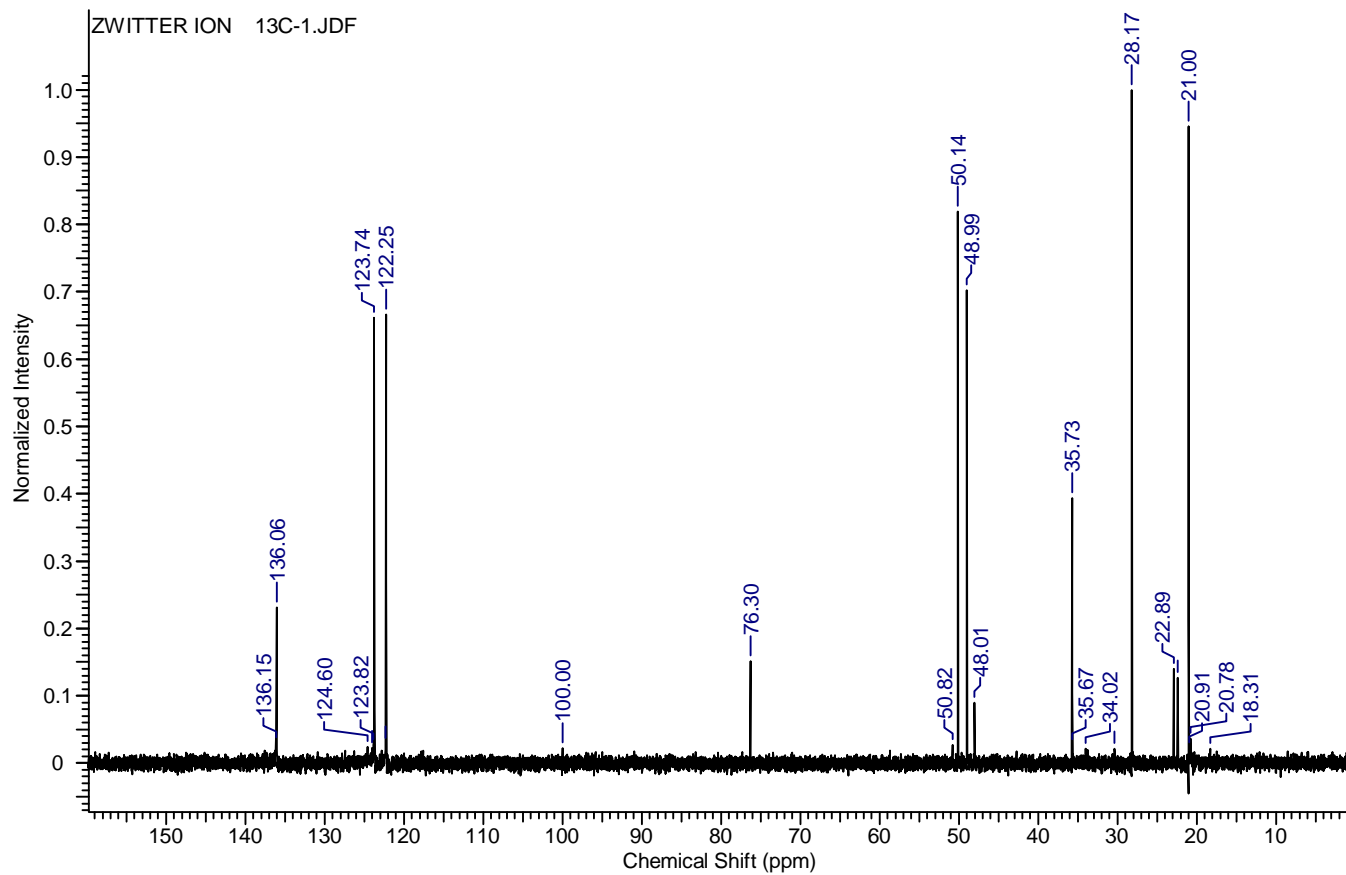


Fig. S3. IR of Zwitterion

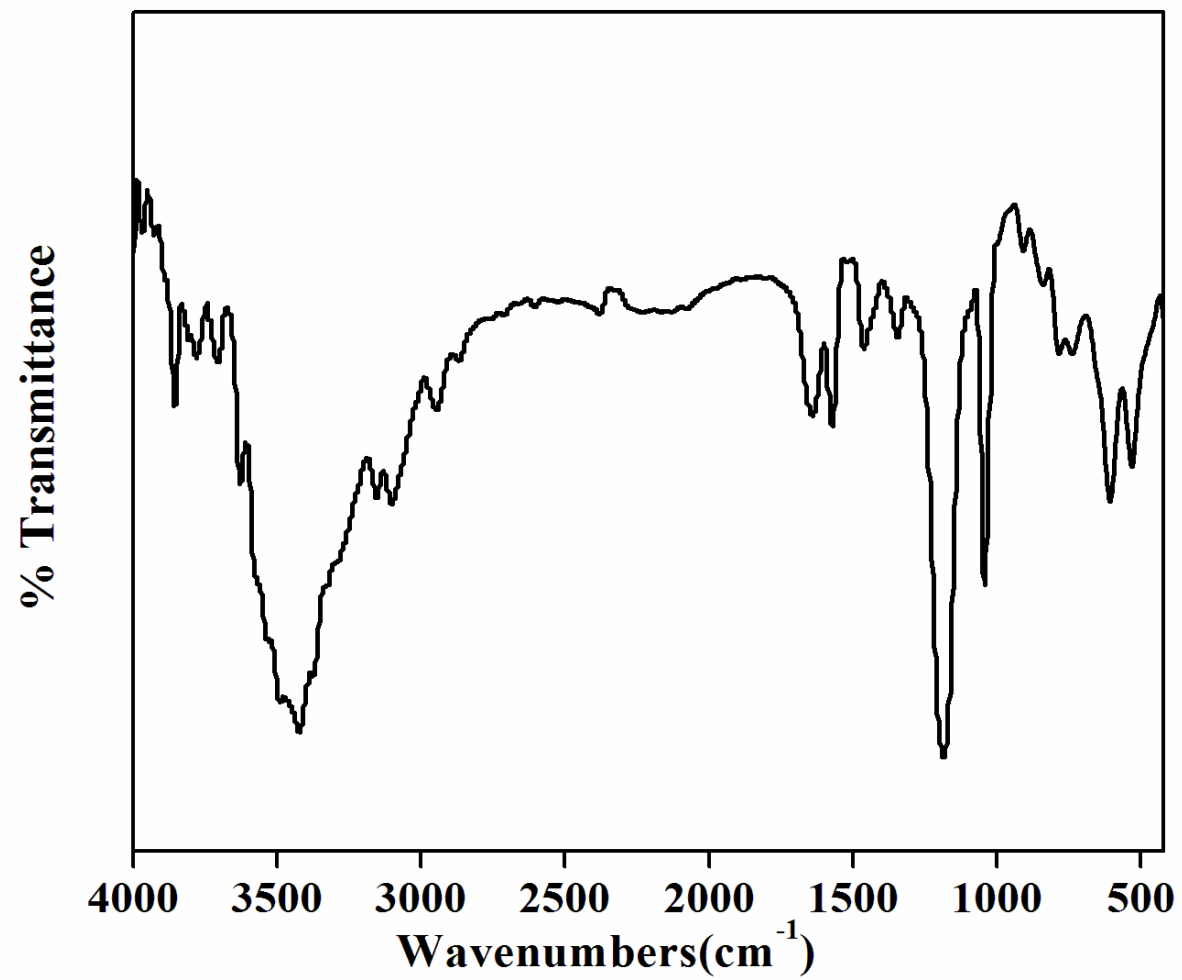


Fig S4 ^1H NMR spectrum of [BSMIM]Cl

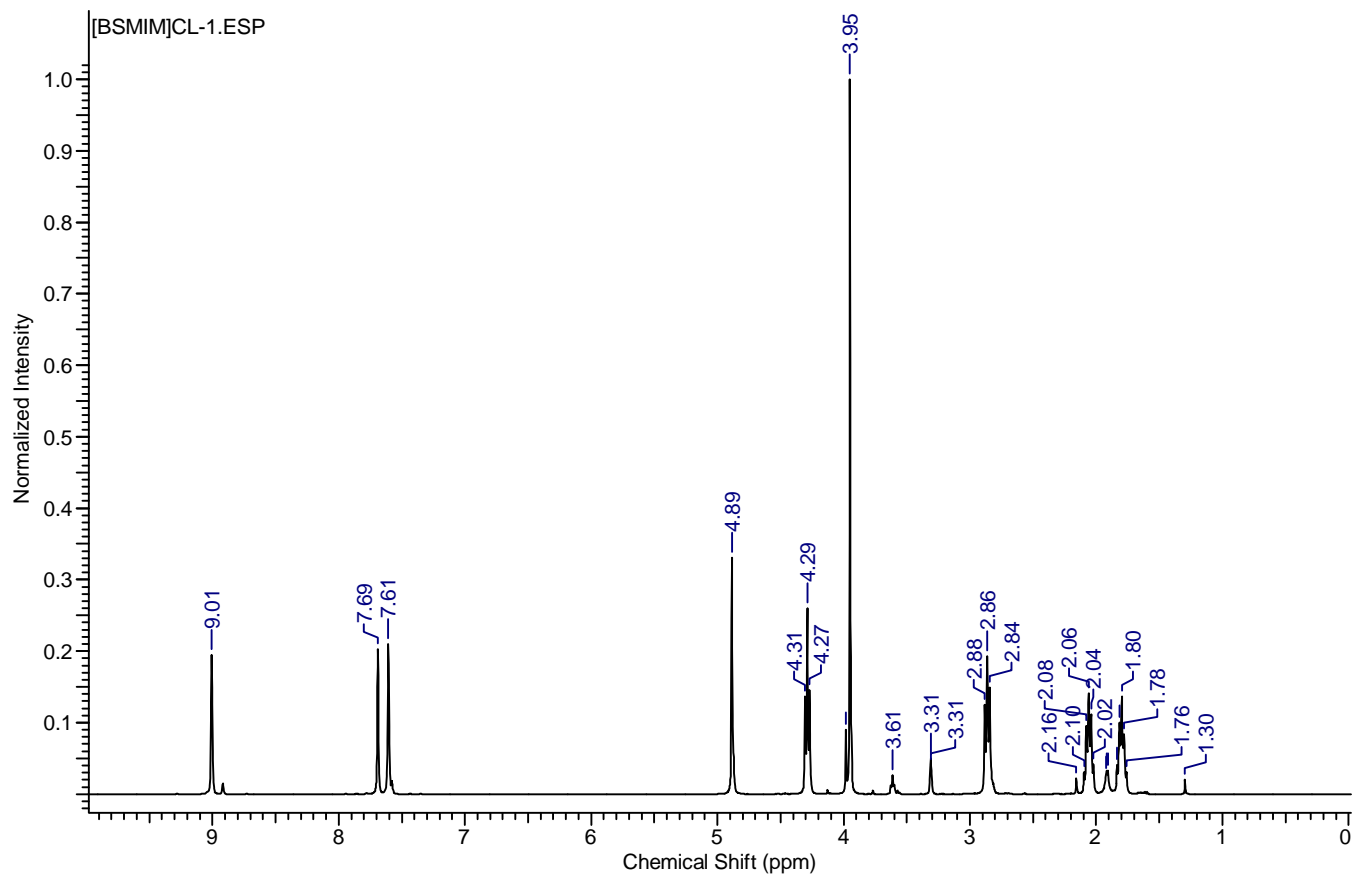


Fig. S5 ^{13}C NMR of [BSMIM]Cl

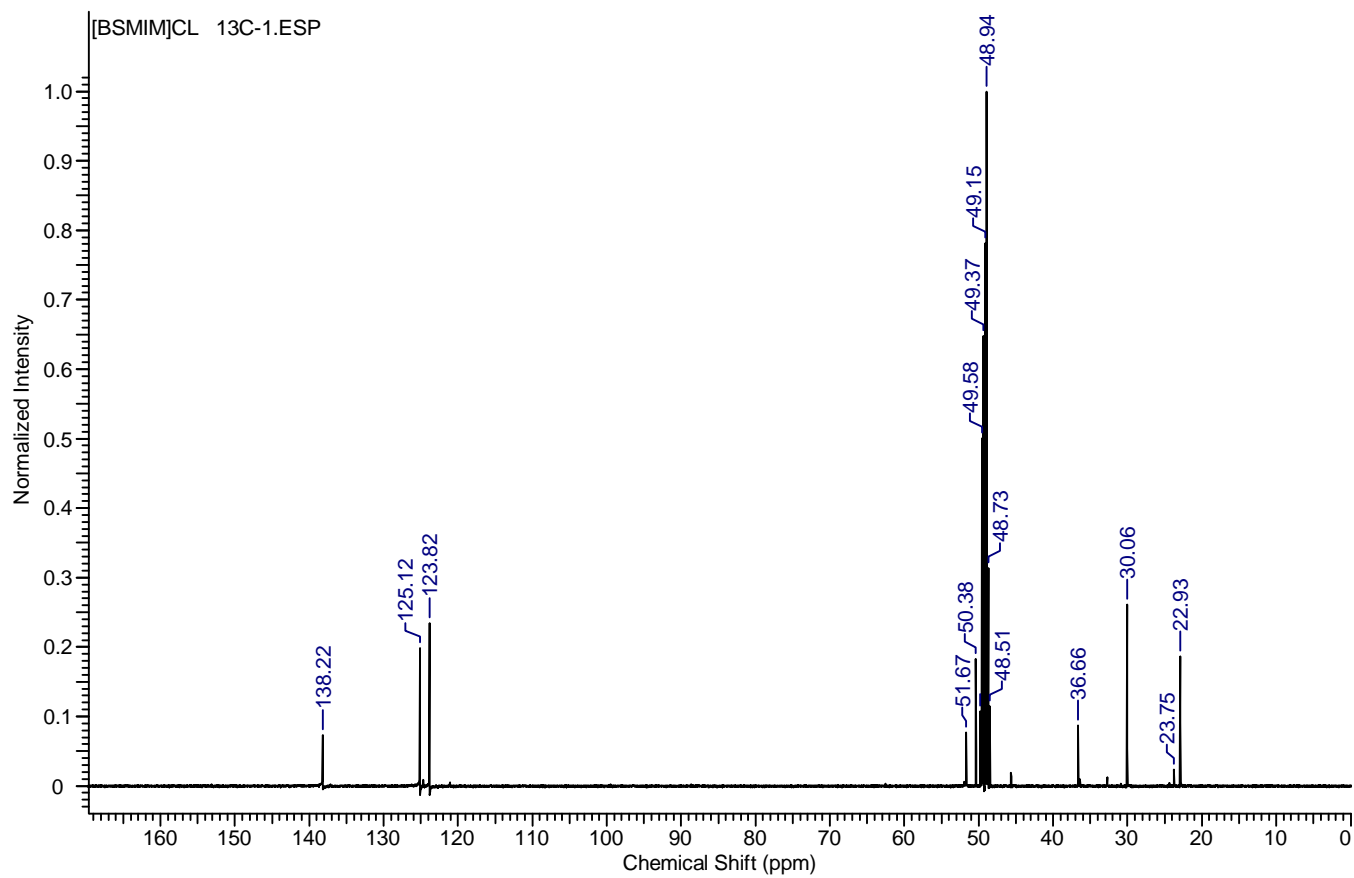
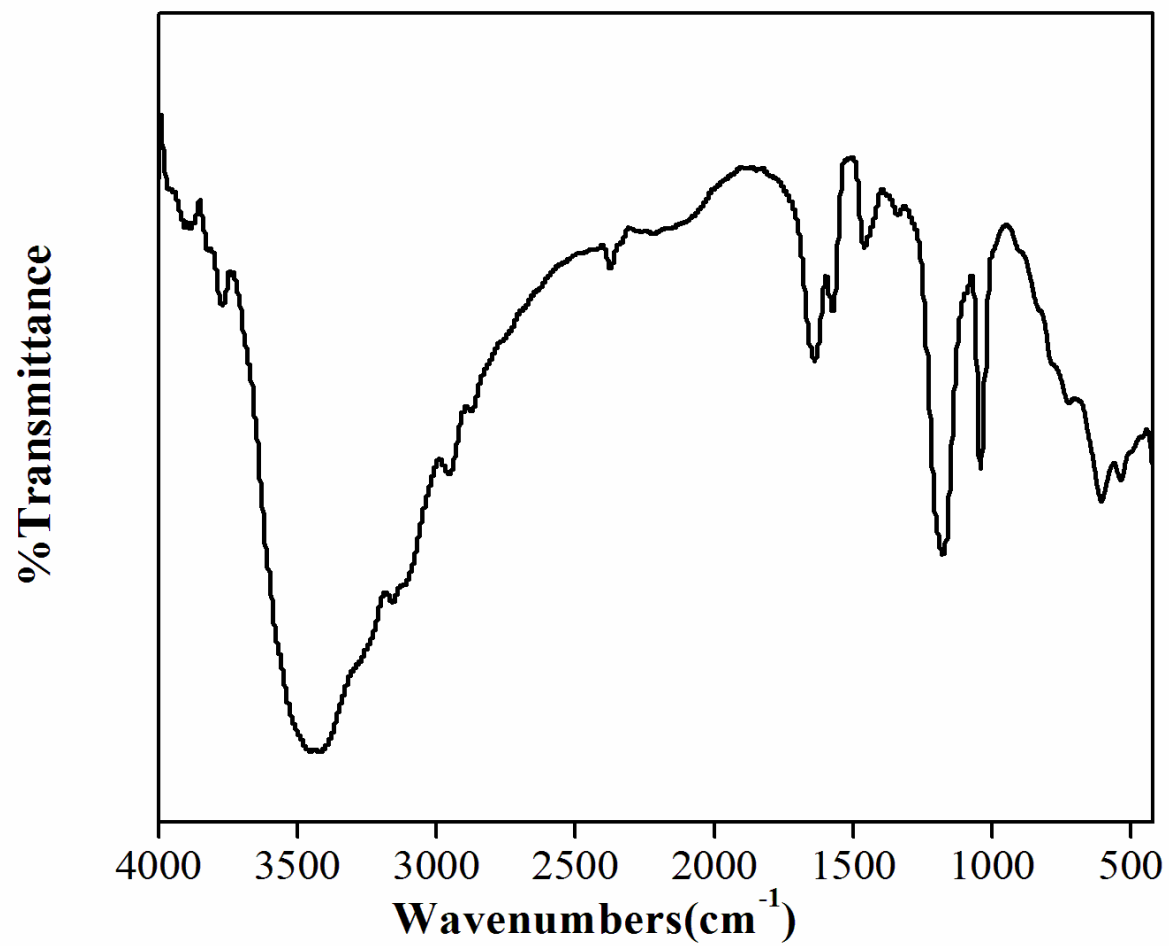
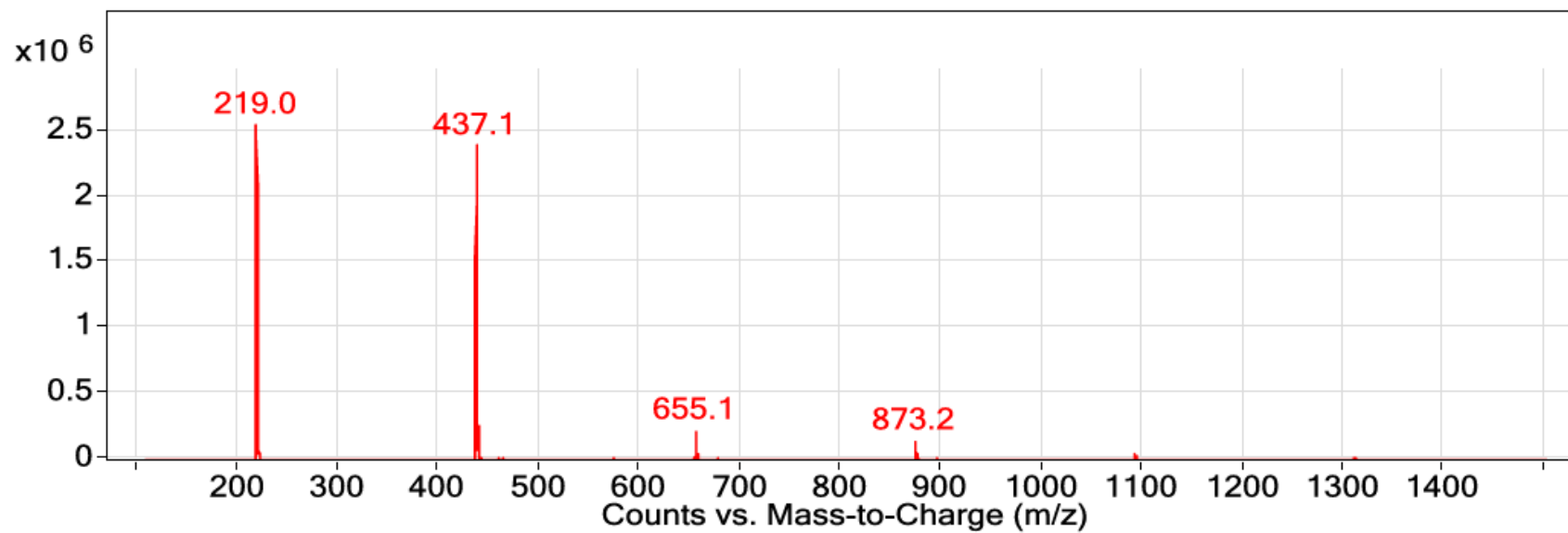


Fig. S6 IR of [BSMIM]Cl



FigS7: ESI-MS of [BSMIM]Cl



FigS10: TGA of [BSMIM]Cl

