Electronic supplementary information

Imidazolium-based dicationic ionic liquids: Highly efficient extractants for separating aromatics from aliphatics

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Table 1. The chemicals used in this experimental process.

Chemical name	CAS	Purity in mass fraction[a]	Manufacturer
benzene	71-43-2	99.5%	Beijing Chemical Works, Beijing, China
toluene	108-88-3	98%	Beijing Chemical Works, Beijing, China
n-hexane	110-54-3	98%	Aladdin Chemical Co., Ltd., Shanghai, China
cyclohexane	110-82-7	99%	Aladdin Chemical Co., Ltd., Shanghai, China
n-heptane	142-82-5	98%	Aladdin Chemical Co., Ltd., Shanghai, China
n-octane	111-65-9	99%	Aladdin Chemical Co., Ltd., Shanghai, China
n-nonane	111-84-2	99%	Aladdin Chemical Co., Ltd., Shanghai, China
acetone	67-64-1	99.5%	Beijing Chemical Works, Beijing, China
N-methylimidazole	616-47-7	99%	Aladdin Chemical Co., Ltd., Shanghai, China
1,5-dibromopentane	111-24-0	98%	Aladdin Chemical Co., Ltd., Shanghai, China
1,6-dibromohexane	629-03-8	97%	Aladdin Chemical Co., Ltd., Shanghai, China
$LiNTf_2$	90076-65-6	99%	Aladdin Chemical Co., Ltd., Shanghai, China

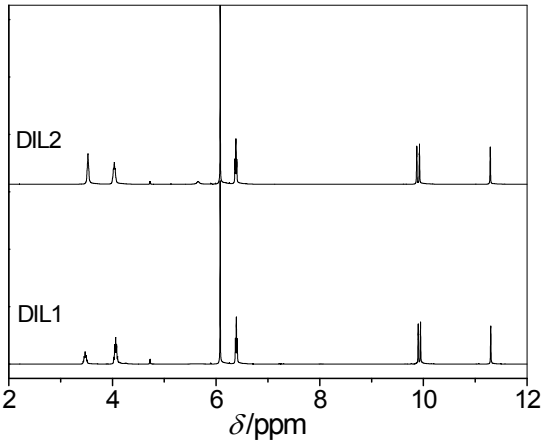

Fig. S1. ^{1}H NMR spectra of DIL1 and DIL2 synthesized in this work.

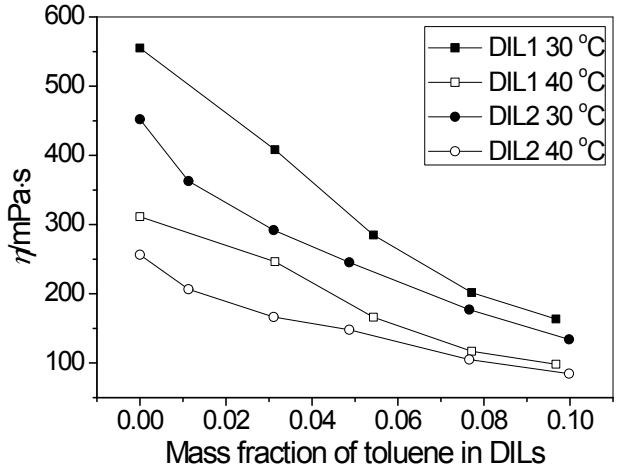

Fig. S2. Effect of mass fraction of toluene in DILs on the viscosities (η) of the DILs.

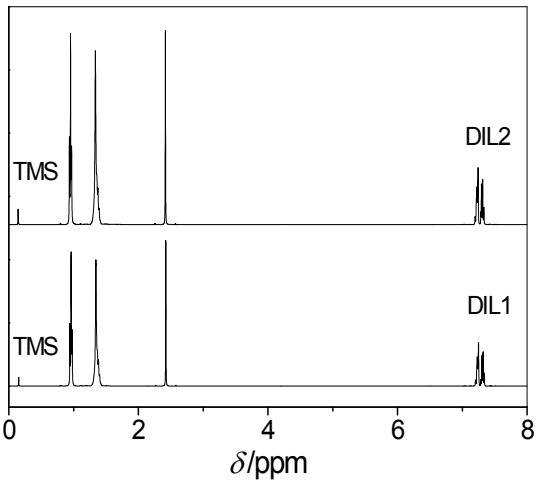

Fig. S3. ^{1}H NMR spectra of the samples from raffinate phase extracted by DIL1 and DIL2, respectively.