

Electronic Supplementary Information

Separation of highly unsaturated fatty acids methyl esters from model bio-oils with ionic liquid-cosolvent as extractants

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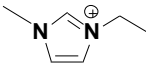
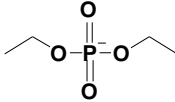
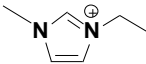

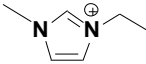
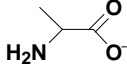
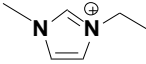
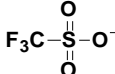
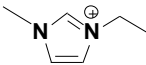
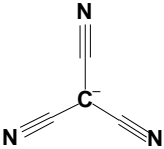
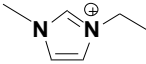
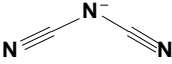
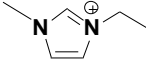
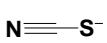
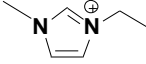
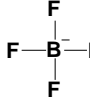
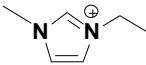

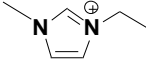
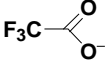
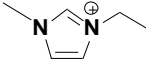
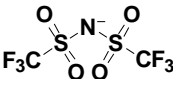
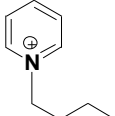
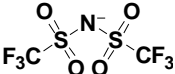
*To whom correspondence should be addressed:

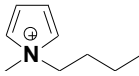
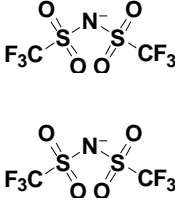
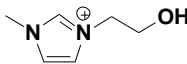
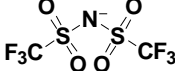
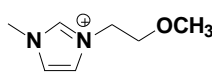
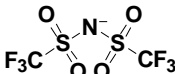
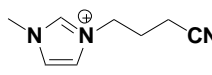
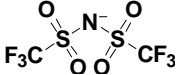
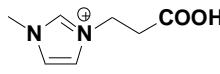
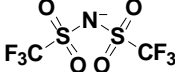
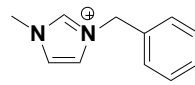
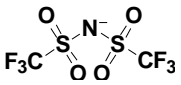
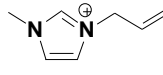
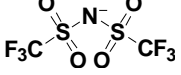
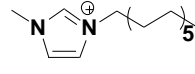
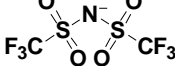
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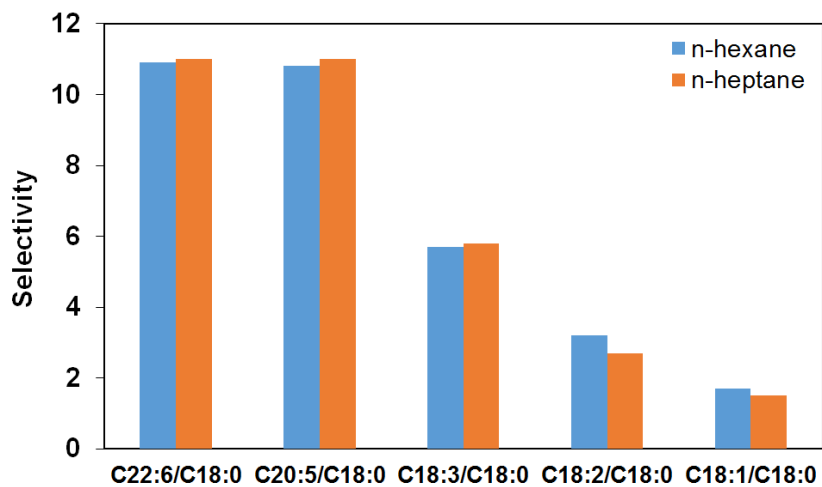
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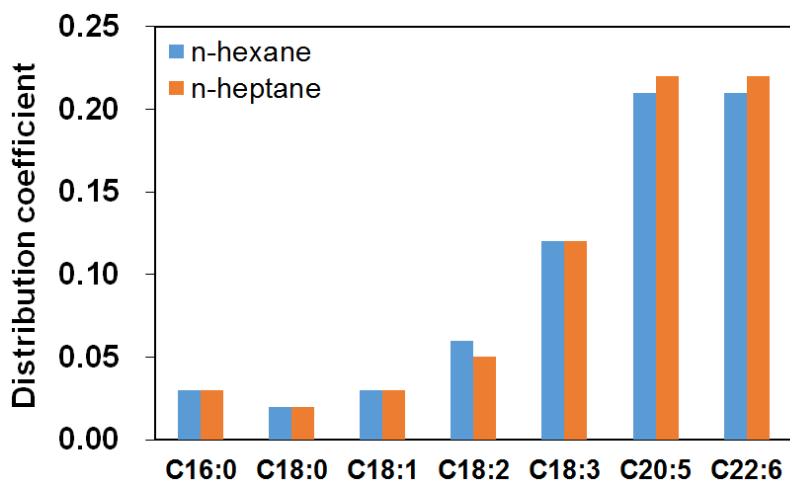
Table S1. The structures of all the ionic liquids used in this work

Abbreviation	Name	Cation	Anion	Purity
[EMIm][(EtO) ₂ PO ₂]	1-ethyl-3-methylimidazolium diethylphosphate			99%
[EMIm][Ac]	1-ethyl-3-methylimidazolium acetate			99%
[EMIm][Ala]	1-ethyl-3-methylimidazolium alanine			99%
[EMIm][CF ₃ SO ₃]	1-ethyl-3-methylimidazolium trifluoromethanesulfonate			99%
[EMIm][C(CN) ₃]	1-ethyl-3-methylimidazolium tricyanomethanide			99%
[EMIm][N(CN) ₂]	1-ethyl-3-methylimidazolium dicyanamide			99%
[EMIm][SCN]	1-ethyl-3-methylimidazolium thiocyanate			99%
[EMIm][BF ₄]	1-ethyl-3-methylimidazolium tetrafluoroborate			99%
[EMIm][NO ₃]	1-ethyl-3-methylimidazolium nitrate			99%
[EMIm][CF ₃ COO]	1-ethyl-3-methylimidazolium trifluoroacetate			99%
[EMIm][NTf ₂]	1-ethyl-3-methylimidazolium bis((trifluoromethyl)sulfonyl)imide			99%
[Bpy][NTf ₂]	N-butylpyridinium bis((trifluoromethyl)sulfonyl)imide			99%

[BMPrr][NTf ₂]	1-butyl-1-methylpyrrolidinium bis((trifluoromethyl)sulfonyl)imide			99%
[HOEMIm][NTf ₂]	1-(2-ethoxyl)-3-methylimidazolium bis((trifluoromethyl)sulfonyl)imide			99%
[MeOEMIm][NTf ₂]	3-(2-methoxyethyl)-1-methyl-1H-imidazol-3-ium bis((trifluoromethyl)sulfonyl)imide			99%
[CNPMIm][NTf ₂]	1-cyanopropyl-3-methylimidazolium bis((trifluoromethyl)sulfonyl)imide			99%
[HOOCEMIm][NTf ₂]	1-carboxyethyl-3-methylimidazolium bis((trifluoromethyl)sulfonyl)imide			99%
[BnMIm][NTf ₂]	1-benzyl-3-methylimidazolium bis((trifluoromethyl)sulfonyl)imide			99%
[AMIm][NTf ₂]	1-allyl-3-methylimidazolium bis((trifluoromethyl)sulfonyl)imide			99%
[C ₁₂ MIm][NTf ₂]	1-dodecyl-3-methylimidazolium bis((trifluoromethyl)sulfonyl)imide			99%



(a)



(b)

Fig. S1. Effect of the feed solvent on the selectivity (a) and distribution coefficient (b). The initial concentration of FAMES in feed solvent was 40 mg/mL. Volume ratio of feed and extraction solvent was 1:1. The extraction temperature was 30°C.