

Supporting information

The qualitative and quantitative analyses of the resulted liquid mixture were conducted with GC-MS (Agilent 6890 series) and GC (Shimadzu GC-2014) equipped with a FID detector using biphenyl as an internal standard. The conversions and selectivities were determined by establishing standard curve of pure matter. In this study, pure HDA can be purchased; pure HDC was synthesized by the alcoholysis reaction of HDI; pure HMC was also synthesized by the alcoholysis reaction of HDI and then was separated by recrystallization and column chromatography methods. All of the obtained pure matters are also identified with ^1H -NMR (Bruker ADVANCE 400) and FTIR (Bruker NC-97).