Supporting information

Reaction routes in catalytic reforming of poly(3-hydroxybutyrate) into renewable hydrocarbon oil

Shimin Kang[a] and Jian Yu*[a]

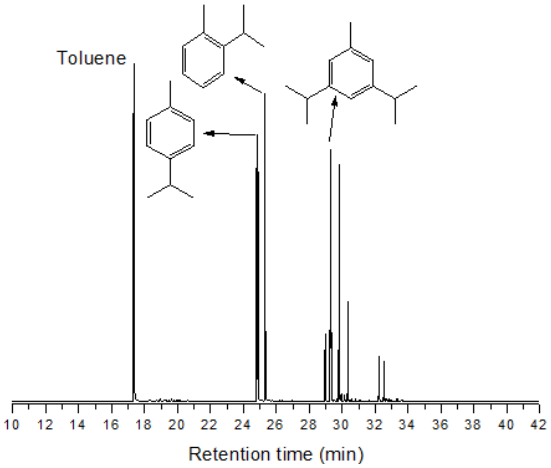

Fig. S1. GCMS spectrum of alkylation products from toluene and propylene under the typical reaction conditions.

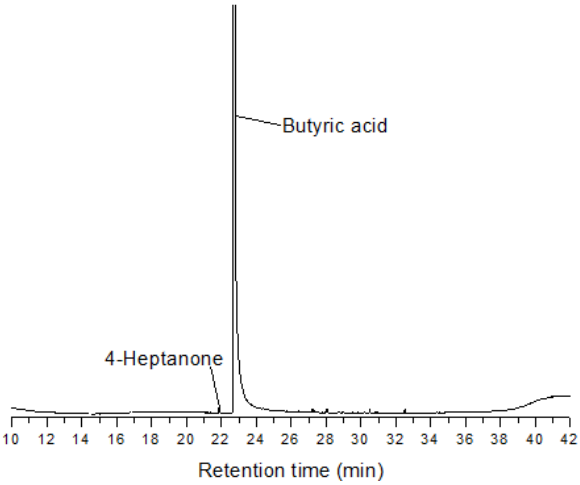

Fig. S2. GCMS spectrum of the products from butyric acid reaction in 100% H_3PO_4 at 220 ^oC for 3 hours.

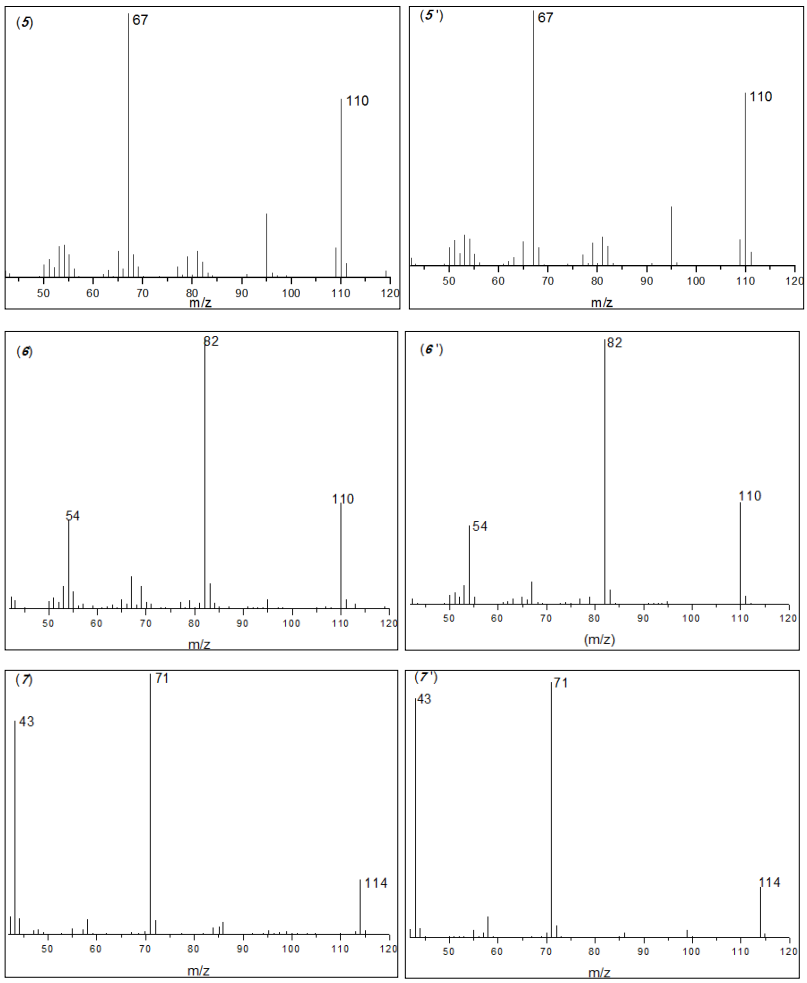

Fig. S3. GCMS mass spectra of initial intermediates 2,3-dimethyl-2-cyclopenten-1-one (***5***) and 3-methyl-2-cyclohexen-1-one (***6***) from PHB reaction and 4-heptanone (*7*) from butyric acid reaction. ***5***' and ***6***' are the mass spectra of pure 2,3-dimethyl-2-cyclopenten-1-one and pure 3-methyl-2-cyclohexen-1-one, respectively. 7' is 4-heptanone's standard reference spectra from NIST 11 mass spectral library.

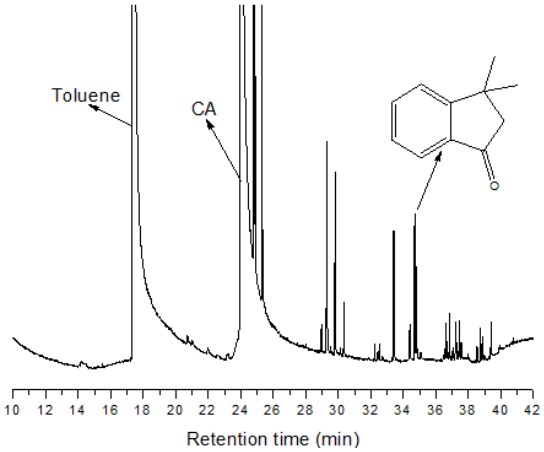

Fig. S4. GCMS spectrum of acylation products from toluene and crotonic acid in 100% H_3OP_4 at 150 ^oC for 3 hours.