Supplementary Information

Efficient one-pot production of 5-hydroxymethylfurfural from inulin in ionic liquids

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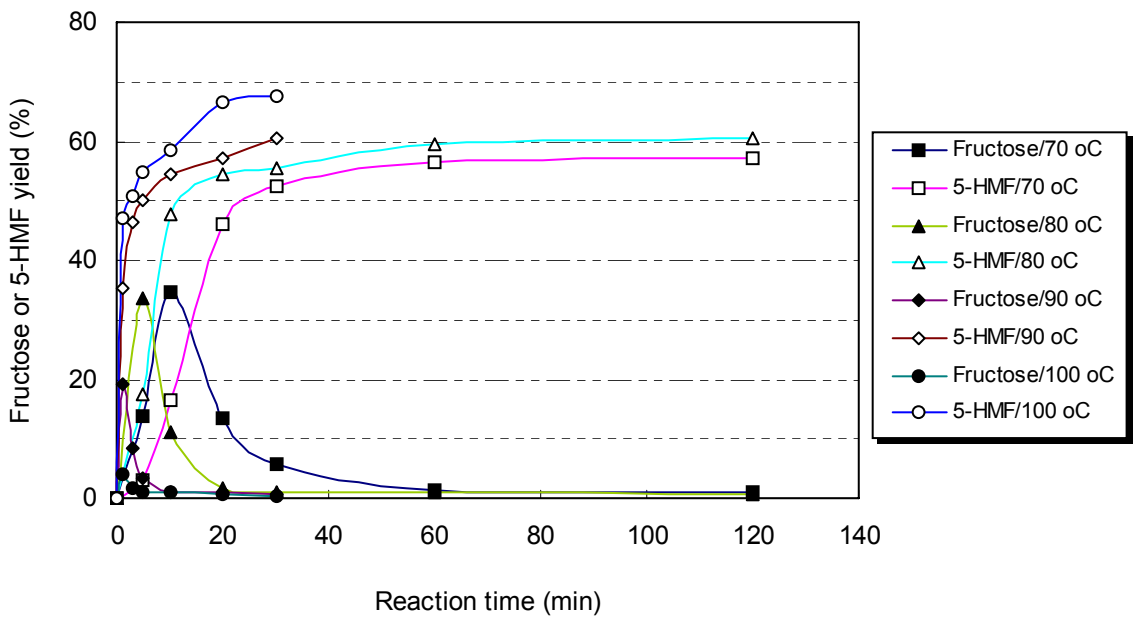

Figure S1. Effect of reaction temperature on conversion of inulin to fructose and 5-HMF in [BMIM][Cl] catalyzed by ion exchange resin (0.05 g inulin, 1 g [BMIM][Cl], 0.05 g Amberlyst 15 resin, 3 mmol water).

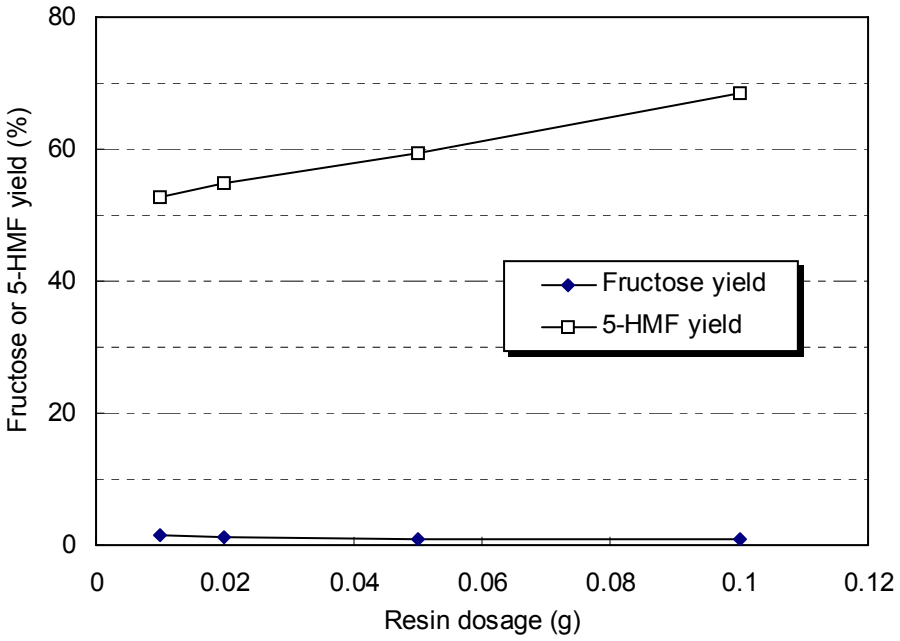

Figure S2. Effect of resin dosage on conversion of inulin to fructose and 5-HMF in [BMIM][Cl] catalyzed by ion exchange resin (0.05 g inulin, 1 g [BMIM][Cl], 3 mmol water, 80 ^{o}C, 60 min).

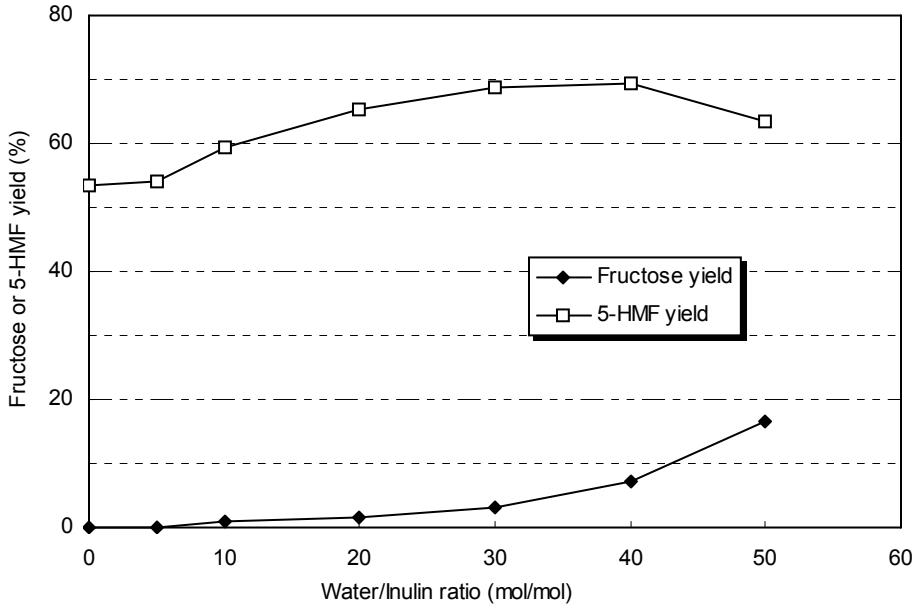

Figure S3. Effect of amount of water added on fructose and 5-HMF yields for reaction of inulin catalyzed by resin (0.05 g inulin, 1 g [BMIM][Cl], 0.05 g resin, 80 ^{o}C, 60 min).

Table S1. Acidity of different Brønsted ionic liquids in [BMIM][Cl] at 80 ^{o}C*

Brønsted acidic ionic liquids	pH value at 80 ^{o}C
[BMIM][HSO_4]	3.61
[EMIM][HSO_4]	3.40
[HMIM][HSO_4]	2.53

* 1 mmol Brønsted acidic ionic liquids ([BMIM][HSO4], [EMIM][HSO_4] or [HMIM][HSO_4]) was mixed with 1 g of [BMIM][Cl], and pH values of the mixtures were measured at 80 ^{o}C with pH meter.