

Table S1. Slope values calculated by linear regression for initial furfural production and xylose conversion rates for xylose (73 mM) and homogeneous catalysts (2 % w/w xylose) treatments at 180 °C.

Catalyst	Initial furfural production rate (% yield/h) slope	Initial xylose conversion rate (% converted/h) slope
CrCl ₃	51.9 ± 0.9 ^a	129 ± 11 ^a
AlCl ₃	33 ± 2 ^b	109 ± 2 ^b
FeCl ₃	20.8 ± 0.6 ^c	45.2 ± 0.6 ^e
Al ₂ (SO ₄) ₃	29 ± 2 ^b	83 ± 1 ^d
KAl(SO ₄) ₂	29.2 ± 0.7 ^b	93.6 ± 0.5 ^c

Different superscript letters indicate significant statistical difference among slopes in the same column (p value ≤ 0.05).

Table S2. Slope values calculated by linear regression for initial furfural production and xylose conversion rates for xylose (73 mM) and heterogeneous catalysts (2 % w/w xylose) treatments at 180 °C.

Catalyst	Initial furfural production rate (% yield/h) slope	Initial xylose conversion rate (% converted/h) slope
Montmorillonite K10	38 ± 2^a	88.9 ± 0.2^b
Ferrierite ammonium	31.9 ± 0.6^b	101 ± 3^a
Zeolite H β	23.6 ± 0.9^c	56.4 ± 0.7^c
<i>Nafion NR50</i>	20.2 ± 0.5^d	56.2 ± 0.4^c

Different superscript letters indicate significant statistical difference among slopes in the same column (p value ≤ 0.05).

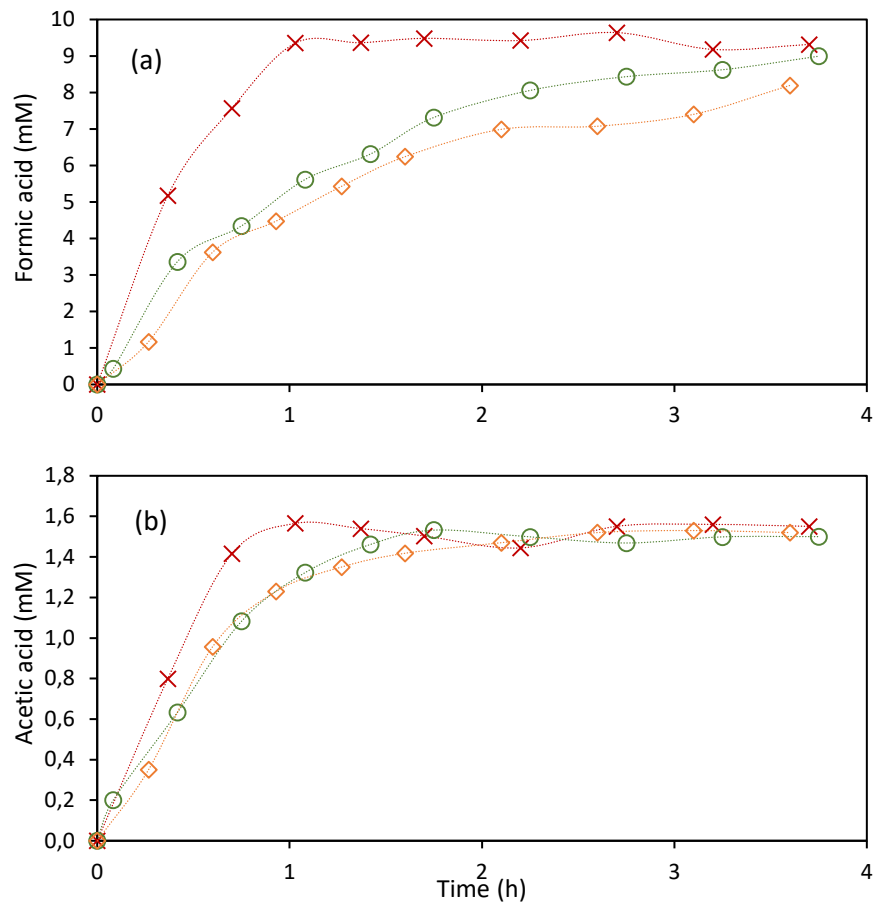


Figure S1. (a) Formic and (b) acetic acid concentration (mM) during subW-CO₂ experiences using xylose (73 mM) at 180 °C and 5.5 MPa with no catalyst (*) and the homogeneous catalysts: CrCl₃ (0.83 mM) (x), AlCl₃ (0.91 mM) (o) and FeCl₃ (0.81 mM) (d). Lines are a guide to the eye.

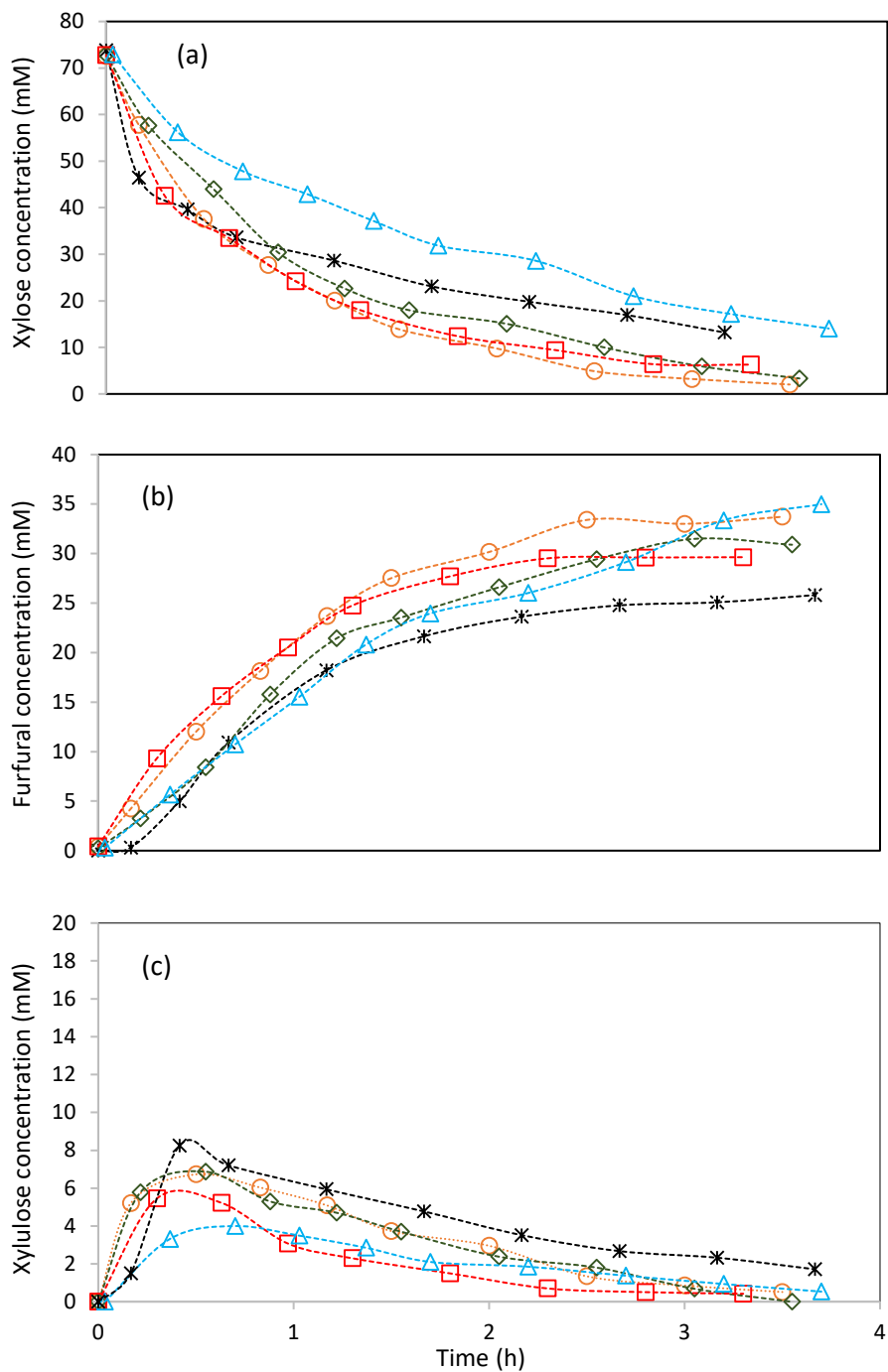


Figure S2. (a) Xylose, (b) furfural and (c) xylulose concentration (mM) during subW-CO₂ experiences using xylose at 180 °C and 5.5 MPa with no catalyst (*), and the heterogeneous catalysts: Ferrierite ammonium (○), Montmorillonite K10 (□), Zeolite Hβ (◇), *Nafion NR50* (△). Lines are represented as a guide to the eye.

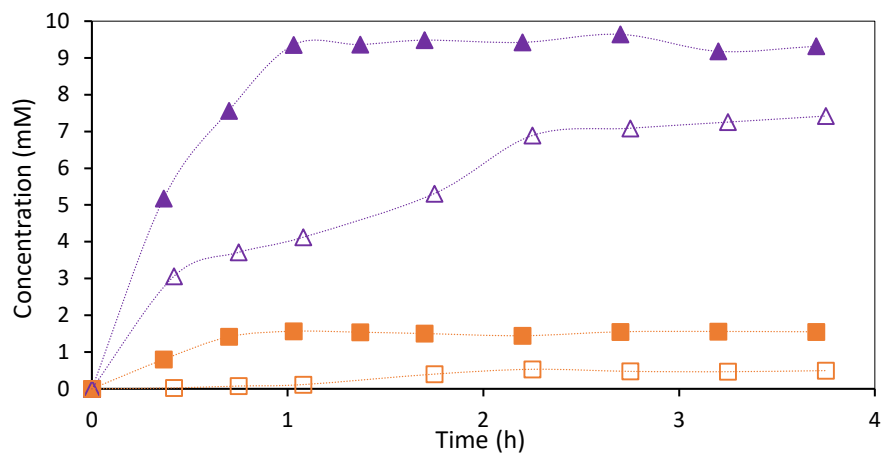


Figure S3. Concentration (mM) of acetic acid (■, □) and formic acid (▲, △) during subW experiences using xylose (73 mM) at 180 °C and 5.5 MPa for CrCl₃ (0.83 mM) (solid) and 1st run Nafion NR50 (empty). Lines are represented as a guide to the eye.