# Electronic Supplementary Information

## Selective production of glycols from xylitol over Ru/CTF-catalysts – Suppressing decarbonylation reactions

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# 2 Physisorption measurement of CTF-materials

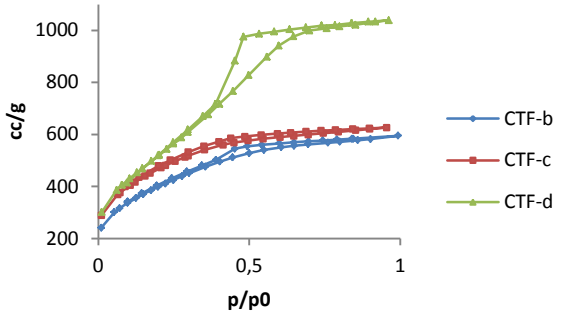


**Figure S1:** Physisorption isotherms for prepared CTF-materials.

# 3 Gas Chromatograms

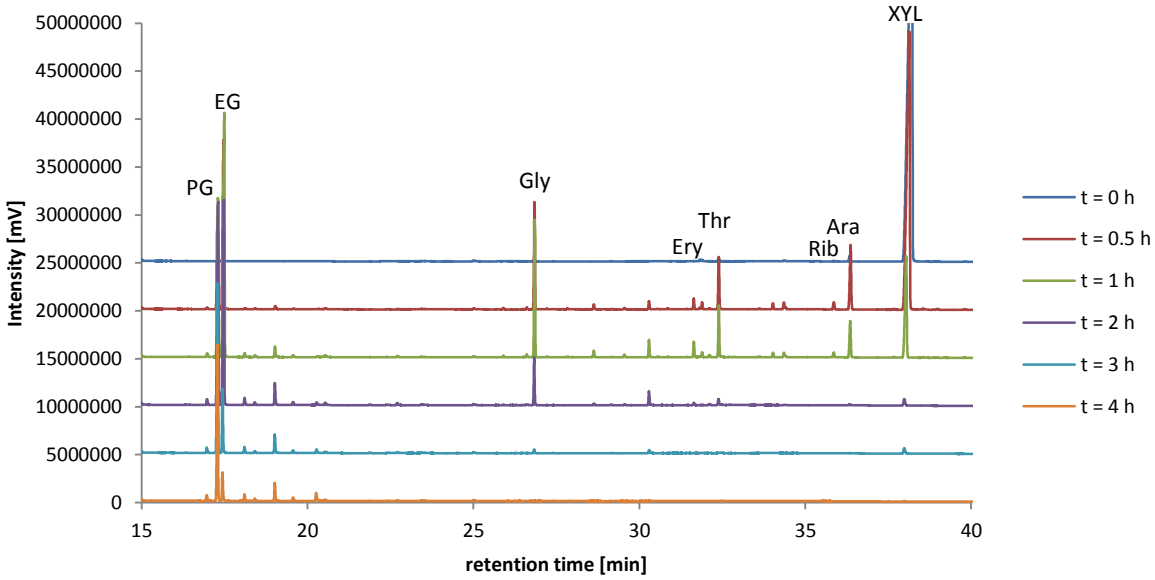


**Figure S2:** Gas chromatograms of the peracetylated reaction soultion of xylitol hydrogenolysis over Ru/C.

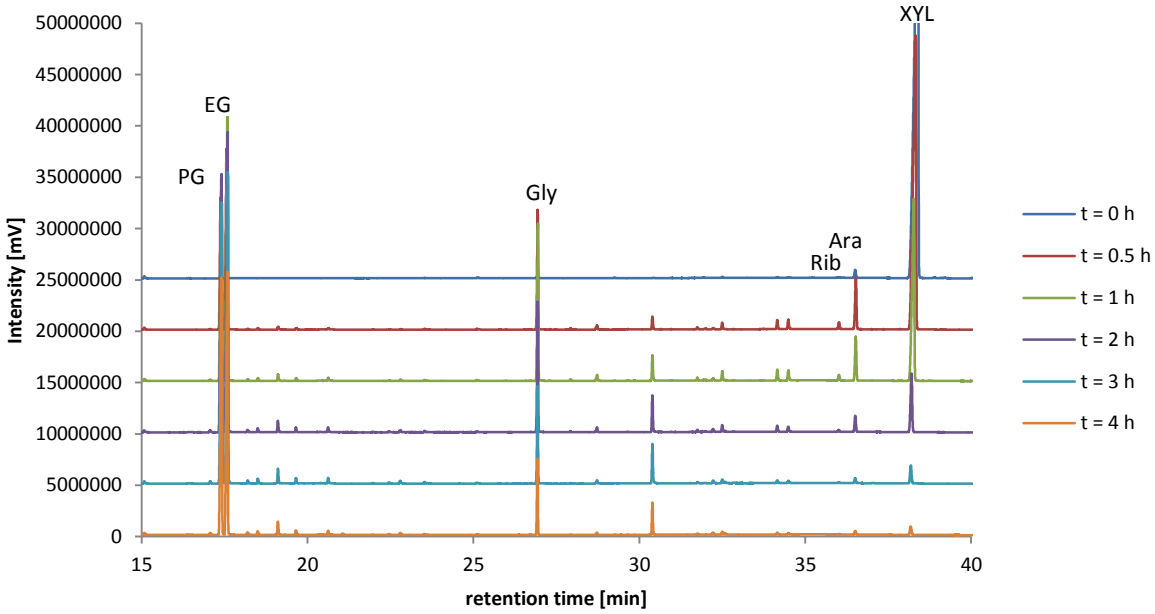


**Figure S3:** GC-chromatograms of the peracetylated reaction soultion of xylitol hydrogenolysis over Ru/CTF-b.

Ara = Arabitol Thr = Threitol

Rib = Ribitol Ery = Erythritol

# 4 Homogeneous Catalysis

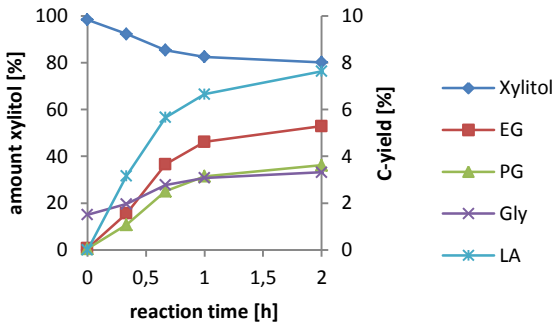


**Figure S4:** Monitoring conversion and yield over time for $Ru(BiPy)_3$ (473 K, 8 MPa $H_2$, 2.0 g xylitol, 20 mL $H_2O$).

# 5 XPS N 1s spectra for CTF-b and unreduced Ru/CTF-b

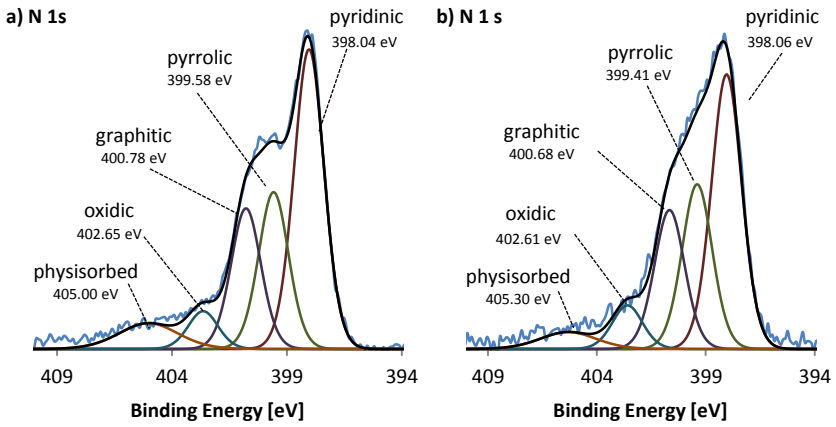


**Figure S5:** XPS N 1s spectra for a) CTF-b and b) unreduced Ru/CTF-b referenced to C 1s at 284.50 eV.

# 6 Leaching of Ru/CTF-b over 5 recycling runs

**Table S1:** Catalyst loading of Ru/CTF-b over multiple recycling runs (results obtained from ICP-OES analysis of the reaction mixture after reaction).

| Run | Ru [ppm] | Ru loss [%] | Calc. Ru loading [%] |
|---|---|---|---|
| - | - | - | 4.996 |
| 1 | 0.537 | 0.107 | 4.991 |
| 2 | 0.165 | 0.033 | 4.989 |
| 3 | < 0.12 | < 0.024 | ≈ 4.989 |
| 4 | < 0.12 | < 0.024 | ≈ 4.989 |
| 5 | < 0.12 | < 0.024 | ≈ 4.989 |