

Supporting Information

Kinetics of Hydrothermal Furfural Production from Organosolv

Hemicellulose and D-Xylose

Jakob Köchermann^{†,*}, Jana Mühlenberg[†], and Marco Klemm[†]

[†] DBFZ Deutsches Biomasseforschungszentrum gemeinnützige GmbH (German Biomass Research Center), Torgauer Straße 116, 04347 Leipzig, Germany

* **Corresponding Author.** Phone: + 49 341 2434 359, Fax: + 49 341 2434 133,

E-mail: jakob.koechermann@dbfz.de

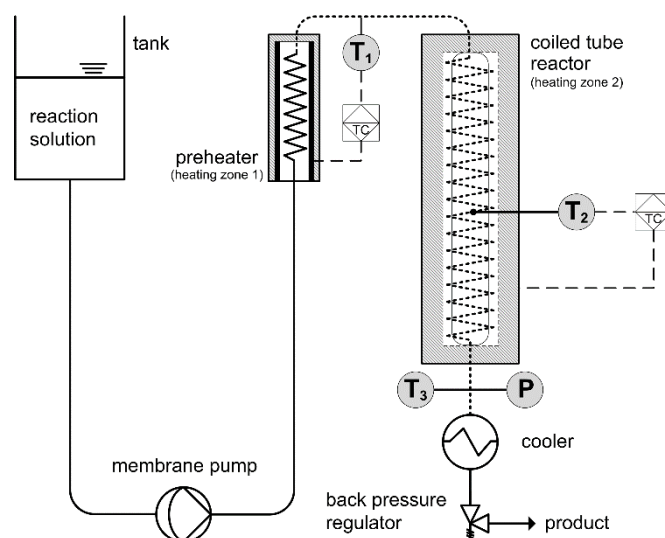


Figure S.1. Schematic of coiled tube reactor used for hemicellulose solution, xylose, and furfural experiments.

Table S.1. Overview of the performed experiments

trial	reactants	xylose (mol L ⁻¹)	furfural (mol L ⁻¹)	reaction temperature (°C)	catalysts	pH
1		-	0.1	160		
2	furfural	-	0.1	180	H ₂ SO ₄	1.6
3		-	0.1	200		
4		0.37	-	160		
5	d-xylose	0.37	-	180	H ₂ SO ₄	1.6
6		0.37	-	200		
7	organosolv	0.38 ^a	3.9 x 10 ⁻⁴	160	H ₂ SO ₄ /	
8	hemicellulose	0.38 ^a	3.9 x 10 ⁻⁴	180	carboxylic	1.6
9		0.38 ^a	3.9 x 10 ⁻⁴	200	acids	

^a Sum of xylose and xylooligosaccharide.