

Supporting Information

Unraveling the secrets of harnessing surfactant-modified strategy in organosolv pretreatment of lignocellulosic biomass for efficient fermentable sugar production

Guojie Song †^a, Hui Zhang †^a, Meysam Madadi^a, Zhixiangpeng Chen^a, Hao Wang^a, Ao Xia^b,
Abdolreza Samimi^c, Chihe Sun^{a,*}, Xianzhi Meng^d, Arthur J. Ragauskas^{d,e}, Fubao Sun^a

^a Key Laboratory of Industrial Biotechnology, Ministry of Education, School of Biotechnology, Jiangnan University, Wuxi 214122, China

^b Key Laboratory of Low-grade Energy Utilization Technologies and Systems, Chongqing University, Ministry of Education, Chongqing 400044, China

^c Department of Chemical Engineering, University of Sistan and Baluchestan, Zahedan, Iran

^d Department of Chemical & Biomolecular Engineering, University of Tennessee, Knoxville TN 37996, USA

^e Joint Institute of Biological Sciences, Biosciences Division, Oak Ridge National Laboratory, Oak Ridge TN 37831, USA

† These authors contributed equally to this work and should be considered co-first authors.

* Corresponding authors

Chihe Sun: chihesun@jiangnan.edu.cn

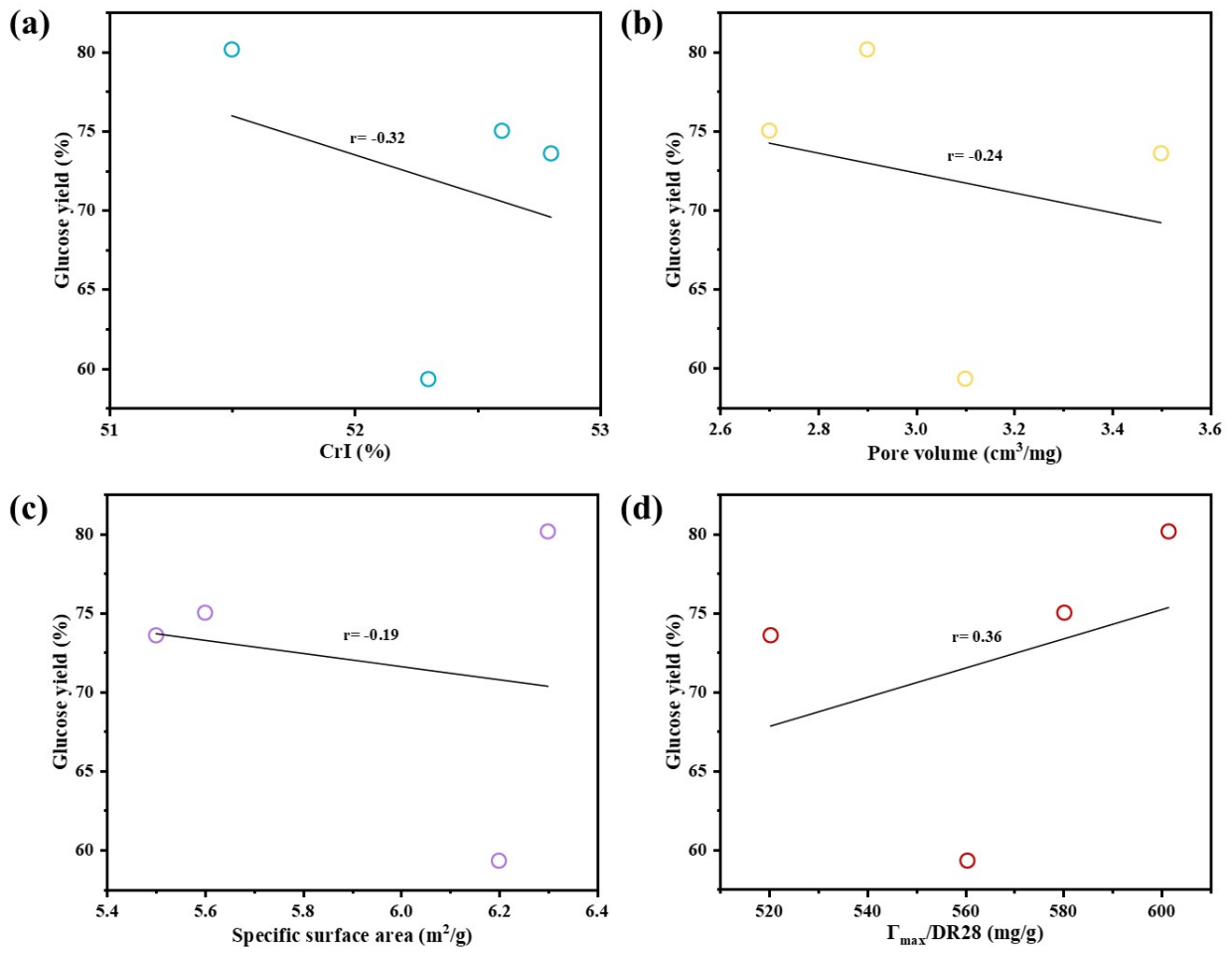


Fig. S1 Correlation analysis between the substrate-related factors and glucose yield.

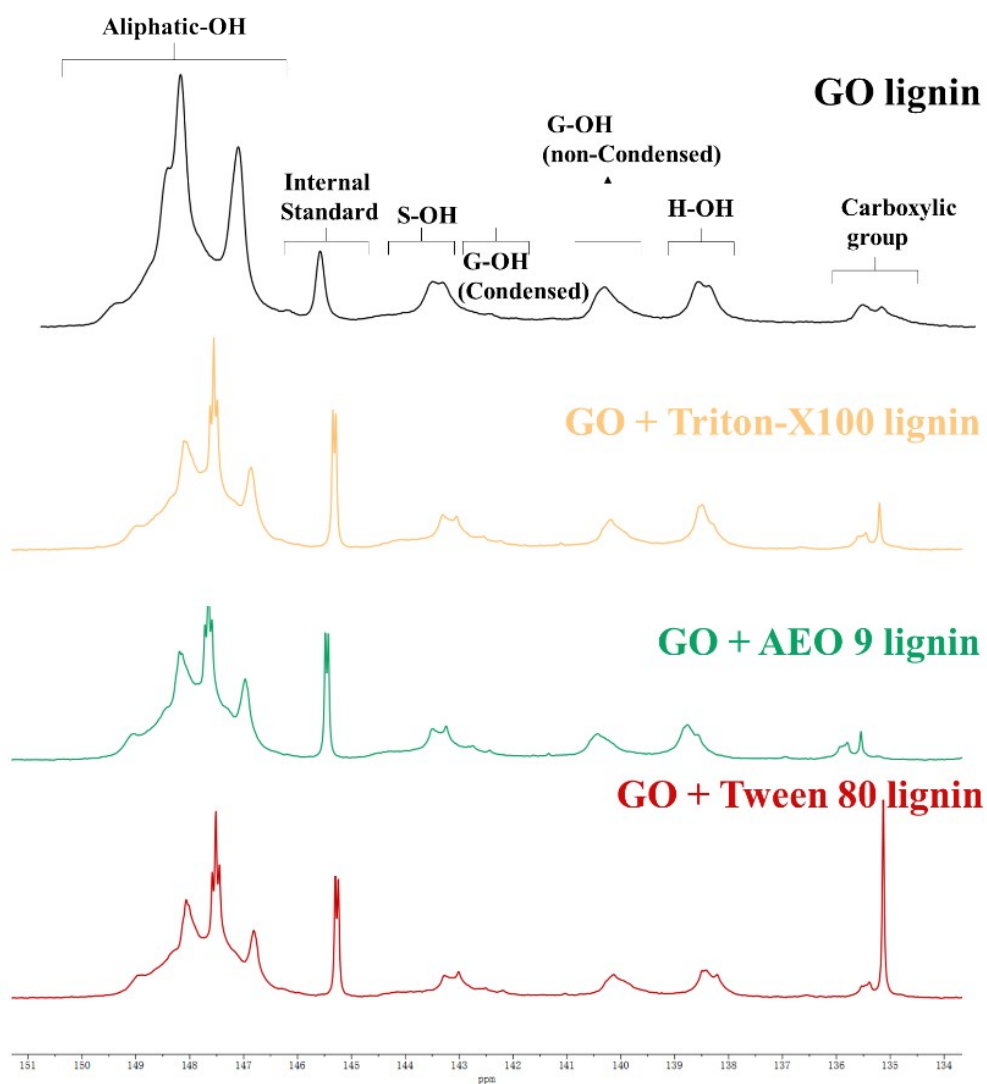


Fig. S2 Quantification of functional groups (mmol/g) in the residual lignin based on ^{31}P NMR.

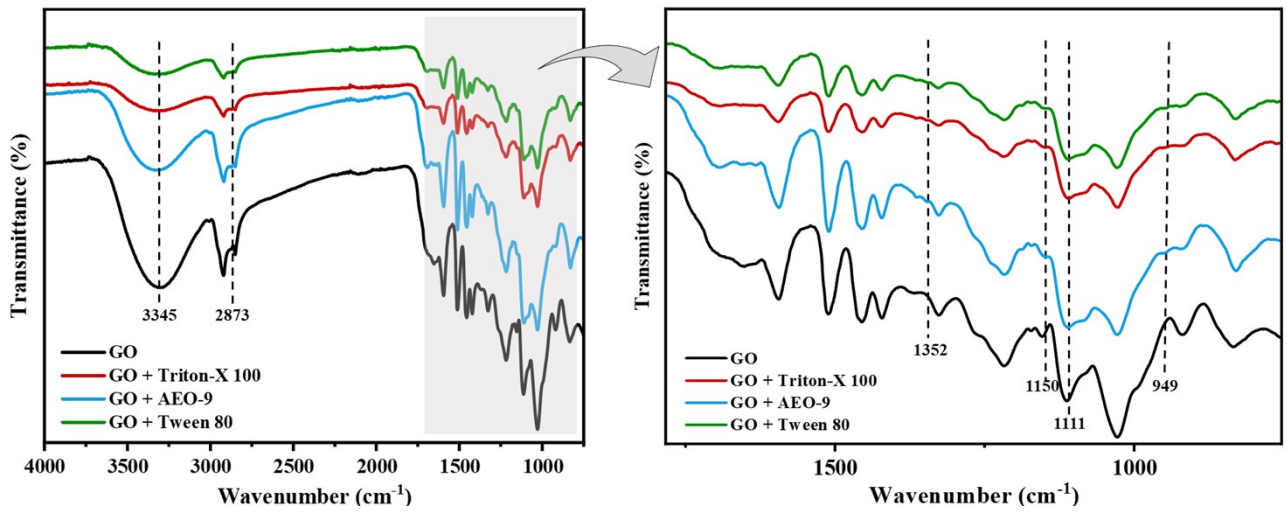


Fig. S3 FTIR spectra for different lignin samples.



Fig. S4 The images of contact angle measurement for different residual lignin samples.

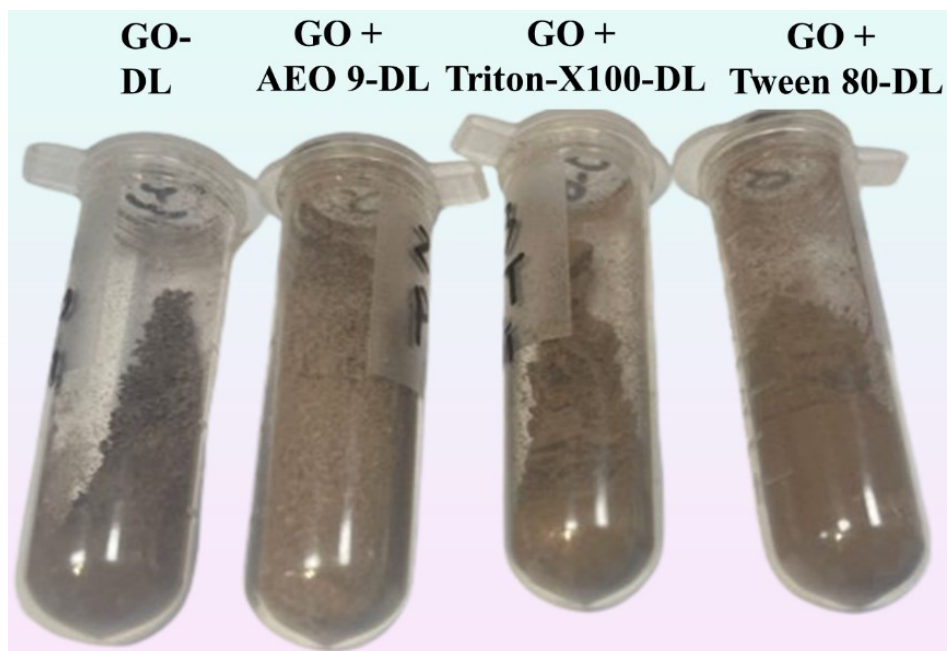


Fig. S5 Color comparison of different dissolved lignin samples.