

SUPPLEMENTARY INFORMATION

Nativity of Lignin Carbohydrate Bonds substantiated by Biomimetic Synthesis

Nicola Giummarella ^{1a}, Sanna Koutaniemi ², Mikhail Balakshin^{3a}, Anna Kärkönen^{4,5*} and Martin Lawoko^{1*}

¹ Fiber and Polymer Technology, Wallenberg Wood Science Center, Royal Institute of Technology, Stockholm, Sweden; ² Department of Food and Environmental Chemistry, University of Helsinki, Finland; ³ Department of Bioproducts and Biosystems, Aalto University, Finland; ⁴ Department of Agricultural Sciences, Viikki Plant Science Centre, University of Helsinki, Finland; ⁵ Natural Resources Institute Finland, Production Systems, Plant Genetics, Helsinki, Finland; * Corresponding Authors. ^a equally contributed.

List of Figures legends

- **Figure S1.** Analysis by Size exclusion chromatography (SEC) in DMSO +0.5% LiBr of Norway spruce extracellular lignin (ECL)
- **Figure S2.** Expanded HSQC spectrum of beech methylglucuronoxylan.
- **Figure S3.** Expanded HSQC spectrum of DHP produced with HRP in the presence of galacturonate (GalA-DHP).

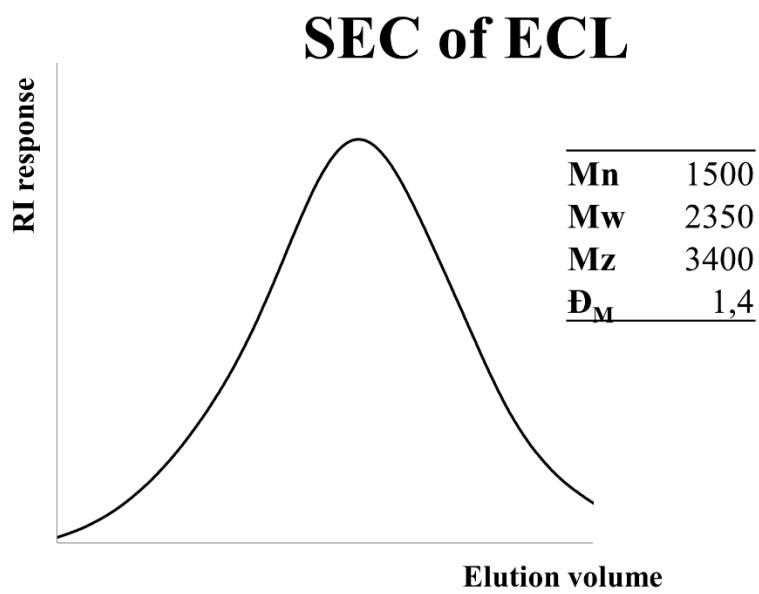


Figure S1. Analysis by Size Exclusion Chromatography (SEC) in DMSO +0.5% LiBr of Norway spruce extracellular lignin (ECL).

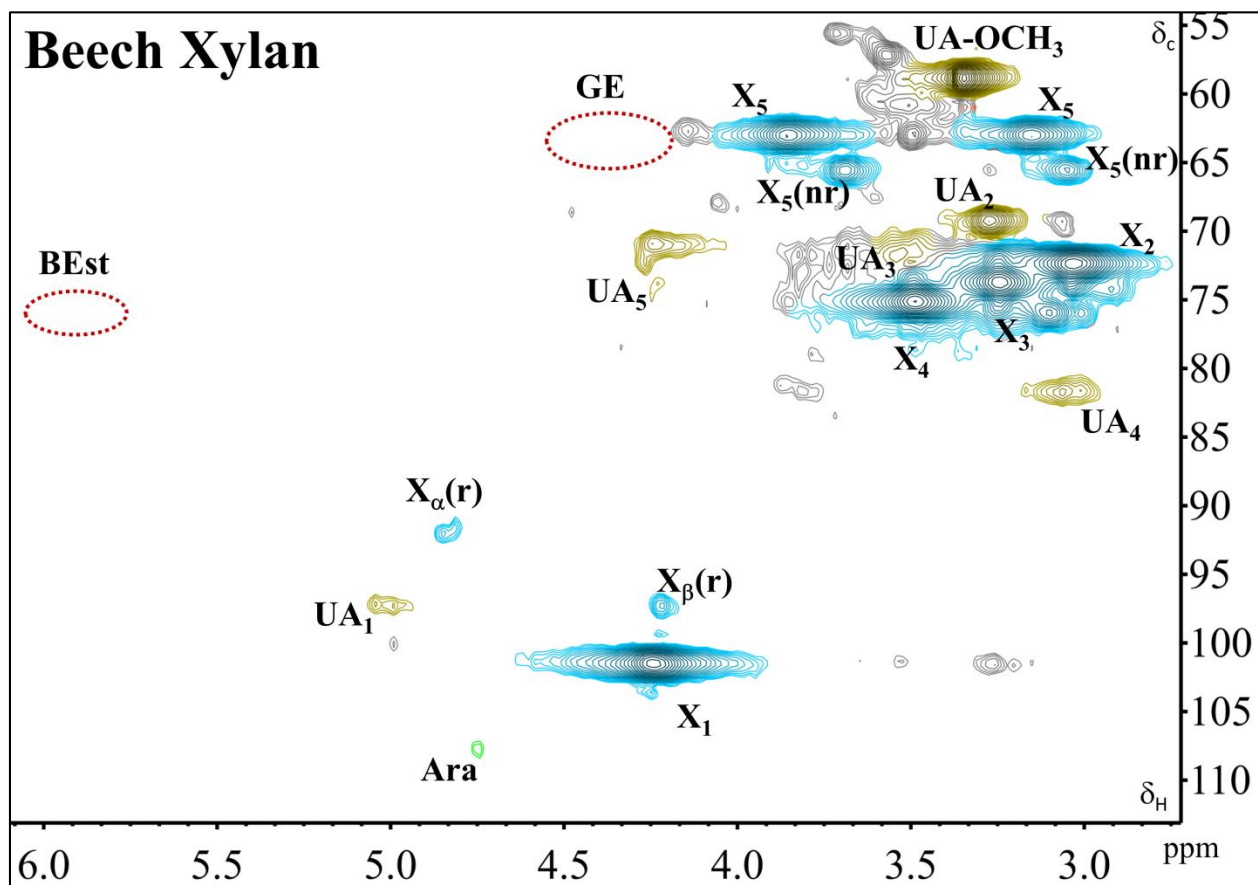


Figure S2. Expanded HSQC spectrum of beech methylglucuronoxylan.

