

## Supporting Information

### A novel and efficient approach to obtain lignin-based polyols with potential industrial application

Jonatan Perez-Arce<sup>1</sup>, Ander Centeno-Pedrazo<sup>1</sup>, Jalel Labidi<sup>2</sup>, José R. Ochoa-Gómez<sup>1,\*</sup> Eduardo J. Garcia-Suarez<sup>1,3,4\*</sup>

<sup>1</sup>TECNALIA, Basque Research and Technology Alliance (BRTA), Alava Technology Park, Leonardo da Vinci 11, 01510 Vitoria-Gasteiz, Spain.

<sup>2</sup>University of Basque Country UPV/EHU, Department of Chemical and Environmental Engineering, Biorefinery Processes Research Group, Plaza Europa 1, 20018 Donostia-San Sebastián, Spain.

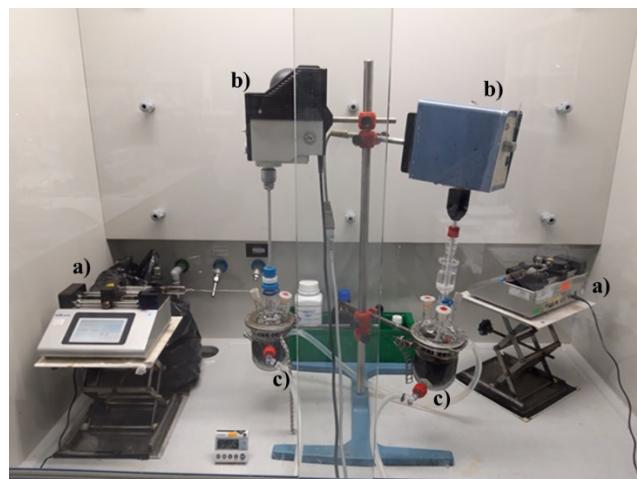
<sup>3</sup>Center for Cooperative Research on Alternative Energies (CIC energiGUNE), Basque Research and Technology Alliance (BRTA), Alava Technology Park, Albert Einstein 48, 01510 Vitoria-Gasteiz, Spain.

<sup>4</sup>IKERBASQUE, Basque Foundation for Science, María Diaz de Haro 3, 48013 Bilbao, Spain.

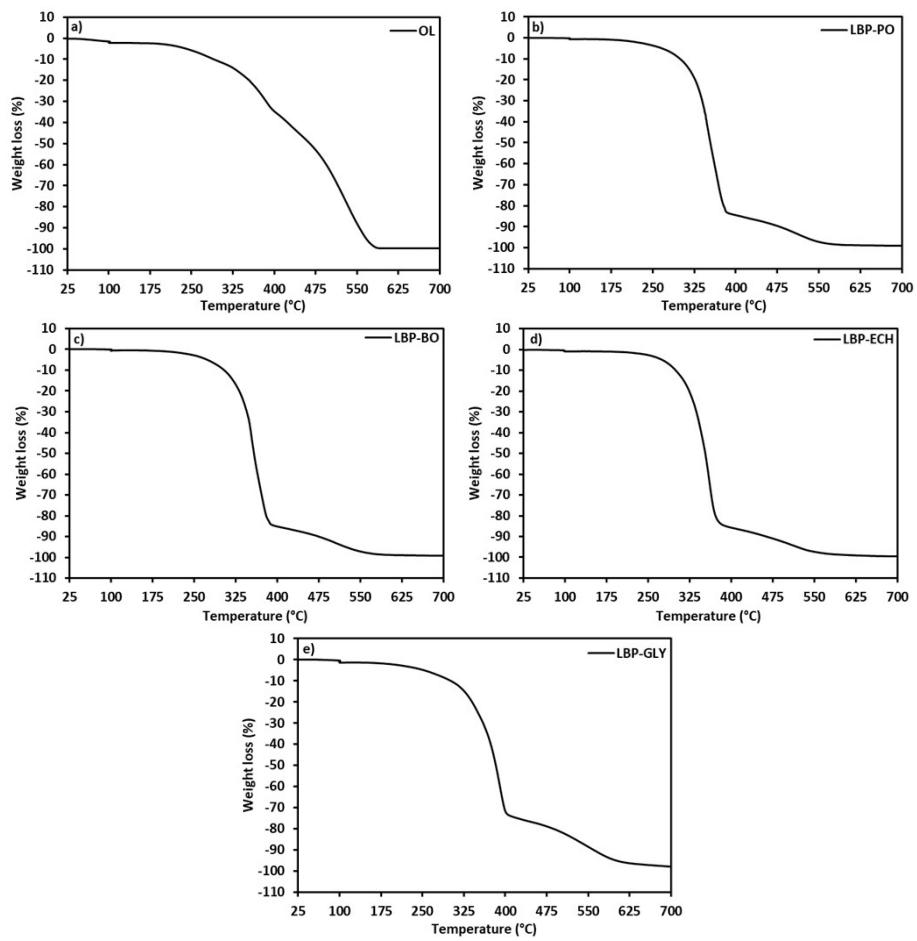
#### S1. Set-up for the synthesis of LBPs

#### S2. TGAs profiles of organosolv lignin and prepared LBPs

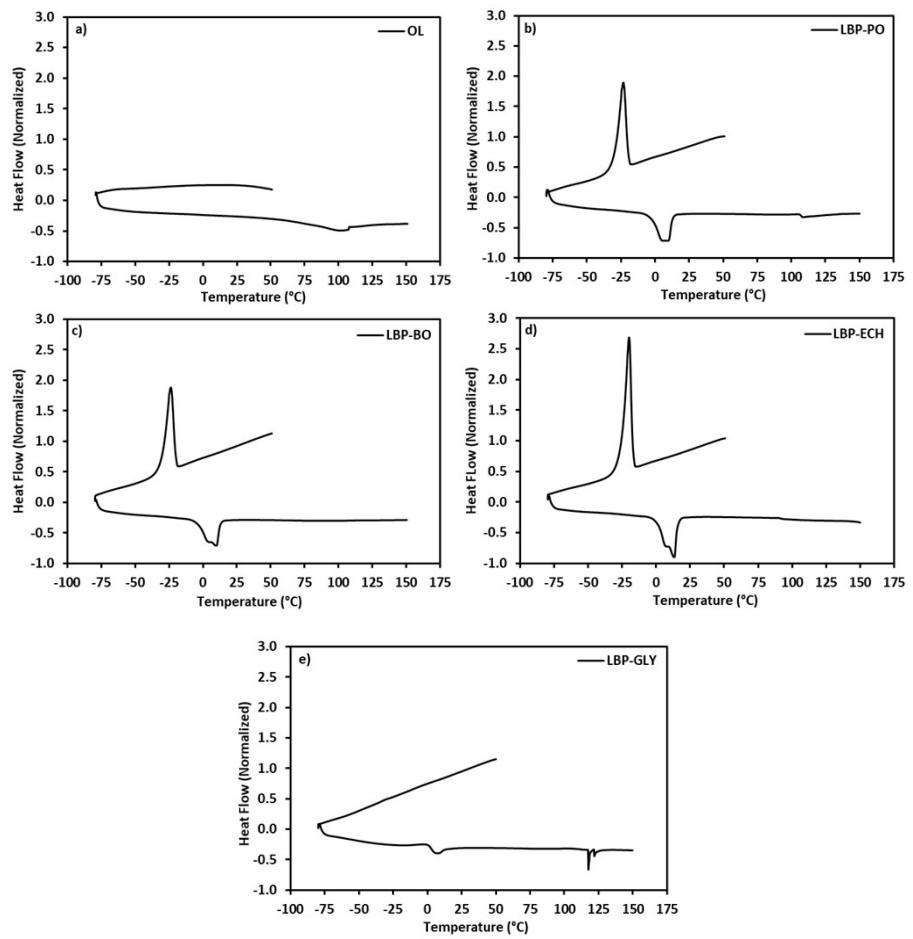
#### S3. DSCs profiles of the organosolv lignin and the prepared LBPs



**S1.** Set-up of the synthesis of LBPs, a) pump syringe for oxirane addition, b) mechanical stirrer and c) glass reactor.



**S2.** TGA profiles: **a)** OL, **b)** LBP-PO, **c)** LBP-BO, **d)** LBP-ECH, and **e)** LBP-GLY



**S3.** DSC profiles: **a)** OL, **b)** LBP-PO, **c)** LBP-BO, **d)** LBP-ECH, and **e)** LBP-GLY