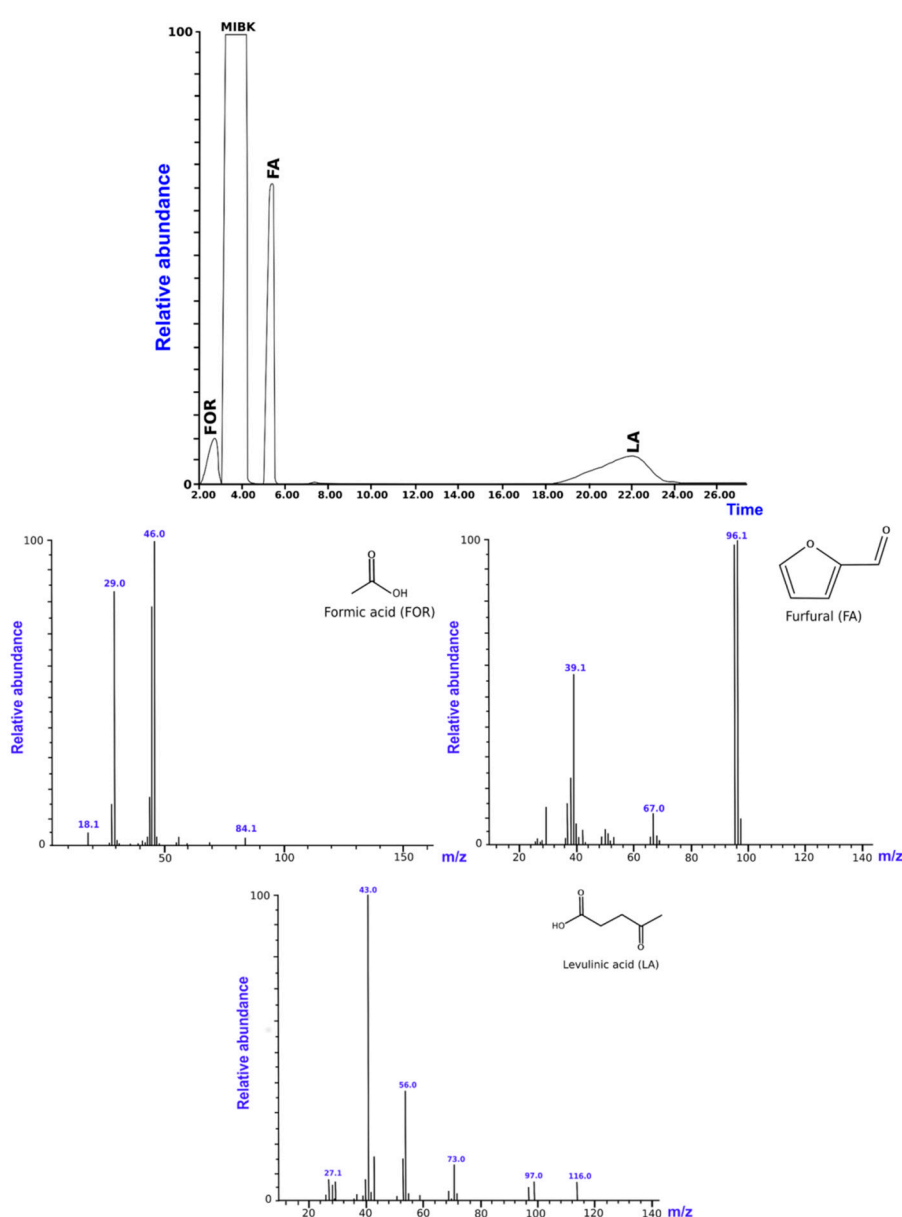


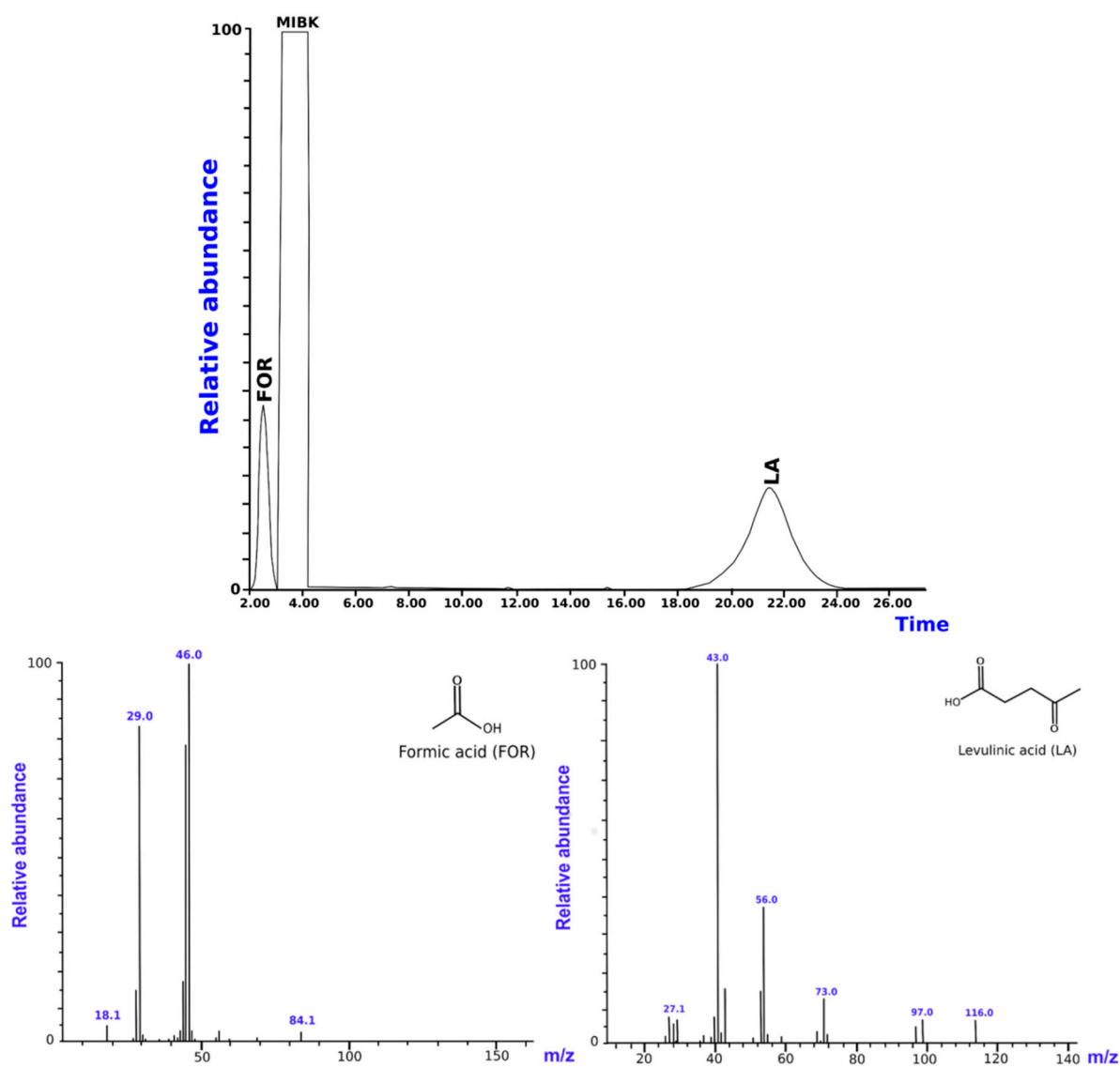
# Supplementary Materials: Hydrothermal Conversion of Giant Reed to Furfural and Levulinic Acid: Optimization of the Process under Microwave Irradiation and Investigation of Distinctive Agronomic Parameters

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At the beginning of the present study, in order to identify the appropriate reaction temperatures for the FA and LA synthesis, a wide screening of the reaction temperatures was investigated (130–190 °C) and the obtained hydrolyzates were analyzed by GC-MS. As example, the GC-MS chromatograms of the reactions at 160 and 190 °C are reported in Figures S1 and S2.



**Figure S1.** GC-MS analysis of reactions at 160 °C. **Agronomic data:** “Pisa” ecotype; harvest time: August; crop age: 4 years. **Operating conditions:** 0.35 g biomass, 5.00 g water, HCl concentration: 1.68 wt %. Hydrolysis time: 15 min.



**Figure S2.** GC-MS analysis of reactions at 190 °C. **Agronomic data:** “Pisa” ecotype; harvest time: August; crop age: 4 years. **Operating conditions:** 0.35 g biomass, 5.00 g water, HCl concentration: 1.68 wt %. Hydrolysis time: 15 min.