Supplementary Information **FUEL**

Fermentation strategies for the efficient use of olive tree pruning biomass from a flexible biorefinery approach

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Methodology

Batch fermentation of 'detoxified-like slurry': the liquid fraction (LF-PEOTP) collected after extraction and steam explosion pretreatment of olive tree pruning biomass was subjected to detoxification and the resulting detoxified liquid fraction (DLF-PEOTP) was once again combined with the corresponding solid fraction (WIS-PEOTP). Such detoxified substrate was then supplemented with the fermentation nutrients (yeast extract (2 g/L), NH_4Cl (1 g/L), KH_2PO_4 (1 g/L), $MgSO_4 \cdot 7H_2O$ (0.3 g/L)) and subjected to fermentation in 100-mL shake flasks with 50 g of fermentation medium at 15% TS (w/w) substrate loading. Simultaneous Saccharification and Fermentation (SSF) assays were performed under optimal conditions for *S. cerevisiae* F12 (35 °C, pH 5.5, 150 rpm) by the simultaneous addition of hydrolytic enzymes (15 FPU of Cellic CTec2/g dry WIS-EOTP) and the fermentative microorganism (1 g/L).

Supplementary Figure S1

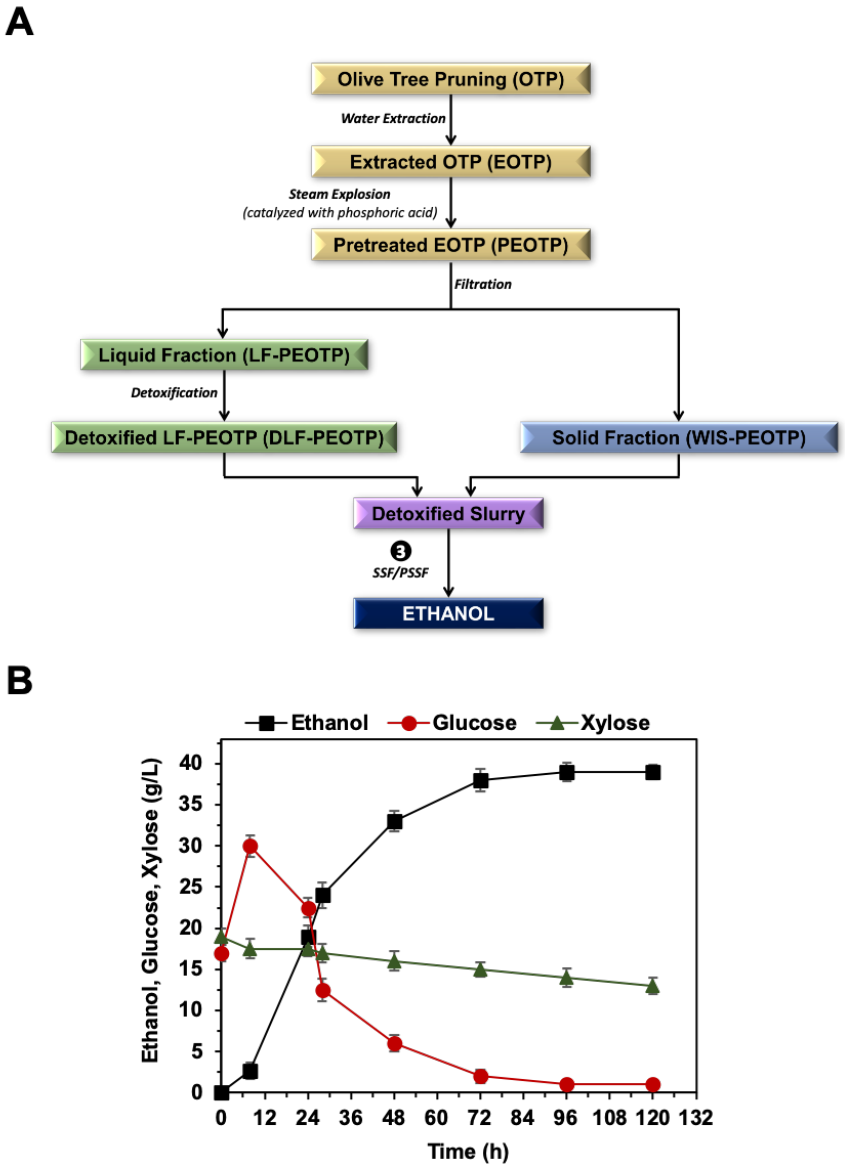

Figure S1. (**A**) Process scheme and (**B**) time-course fermentation of detoxified pretreated OTP biomass with *S. cerevisiae* F12 under batch fermentation strategy.