Activated carbons from fast pyrolysis biochar as novel catalysts for the post-treatment of pyrolysis vapors, studied by analytical pyrolysis

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Supporting material

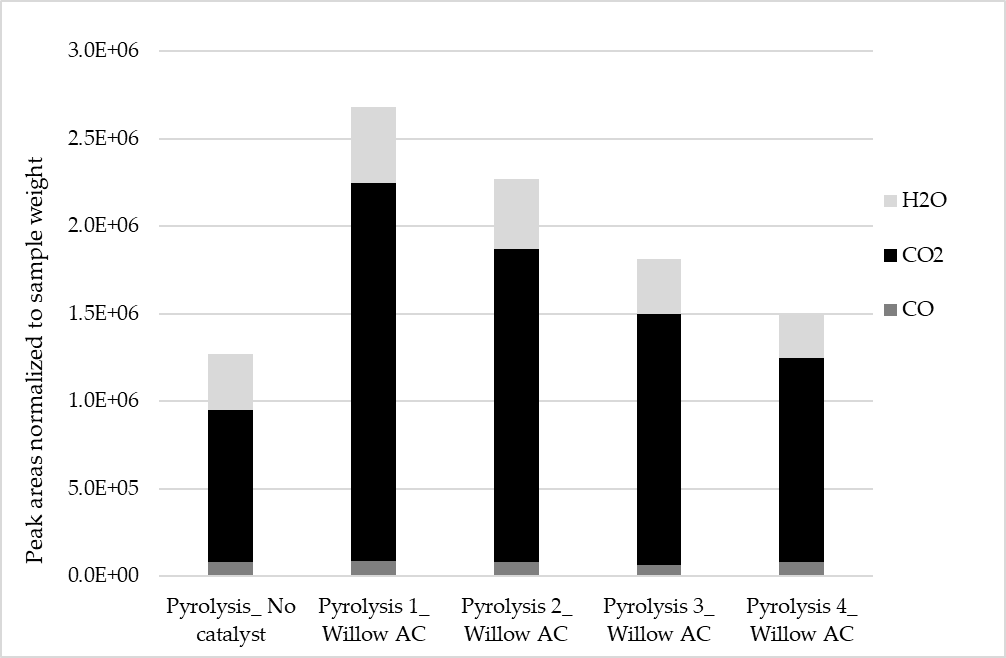


Figure S1. Gas and water release in thermal pyrolysis of pine (pyrolysis\_No catalyst) and in post-treatment of pine pyrolysis vapours using four times the same original willow activated carbon (AC) as catalyst. Compounds analysed by GC/MSD.

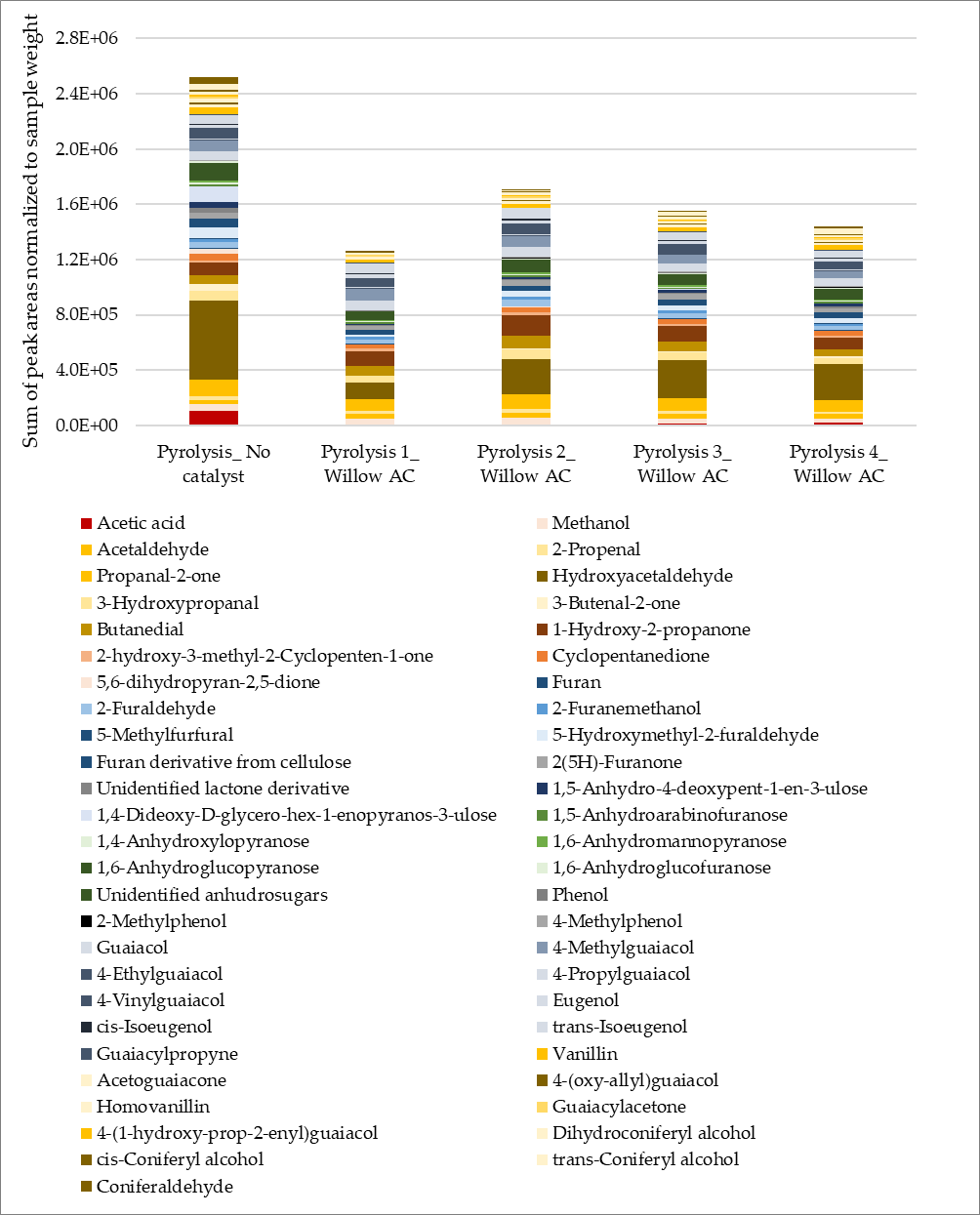


Figure S2. Polysaccharide and lignin pyrolysis derivatives released in thermal pyrolysis pine and in post-treatment of pine pyrolysis vapours using four times the same original willow activated carbon (AC) as catalyst. Compounds analysed by GC-FID.

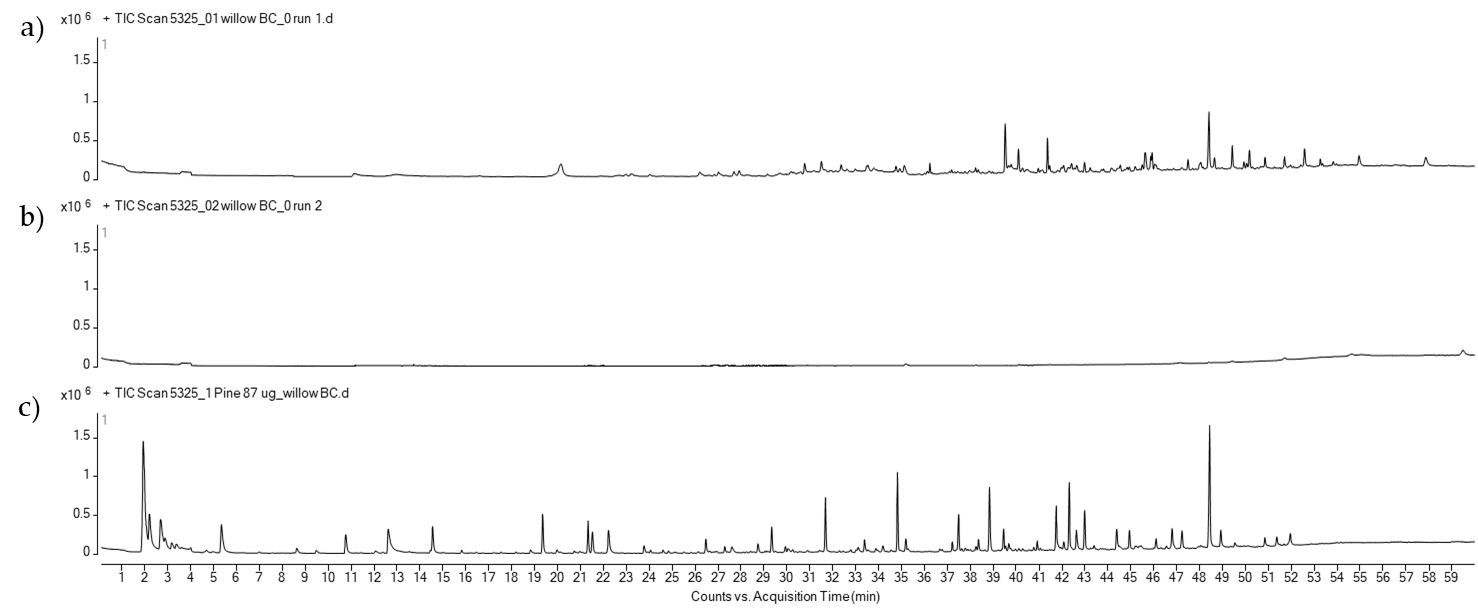


Figure S3. Total ion chromatograms of two pyrolysis runs with willow BC without biomass a) pretreatment 1 and b) pretreatment 2 and c) post-treatment of pine pyrolysis vapours using pretreated willow BC as catalyst.

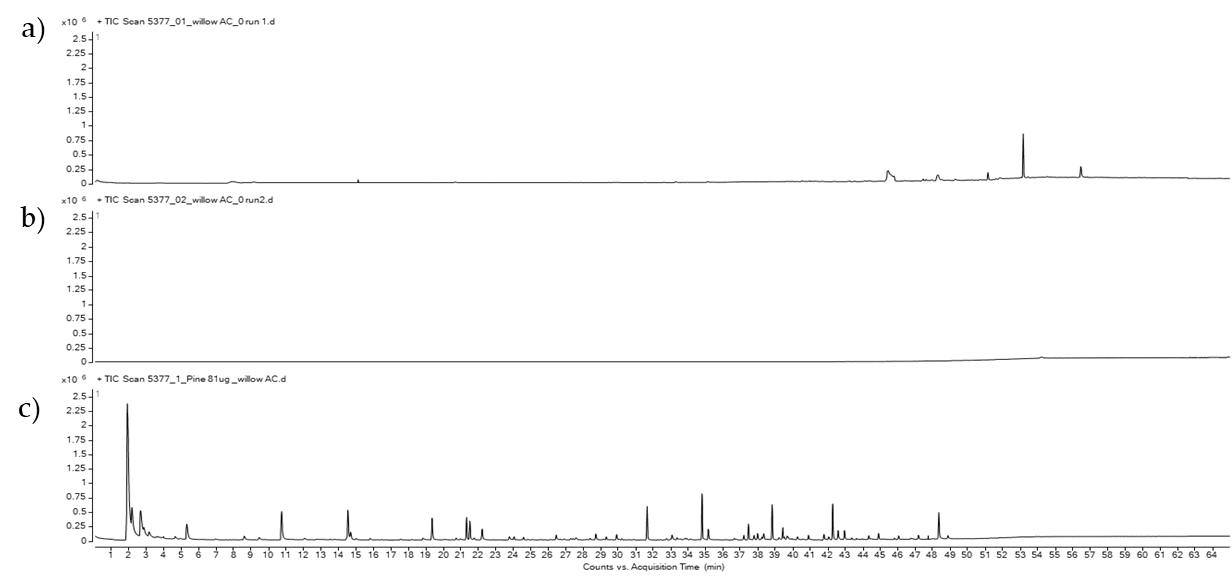


Figure S4. Total ion chromatograms of two pyrolysis runs with willow AC without biomass a) pretreatment 1 and b) pretreatment 2 and c) post-treatment of pine pyrolysis vapours using pretreated willow AC as catalyst.