## Supplementary Material

**Tab. S1 -** Main compounds identified via PTR-TOF-MS during first measurement: Protonated masses (mass/charge = m/z), molecular formula, tentative identification, references of the investigated volatile compounds emitted from different wood species. The symbols indicate the presence (*) or the absence (-).

| Measured m/z | Protonated formula | Tentative identification | References (PTR-MS [#]; Wood (plant and solid wood)*) | Code species number | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 27.022 | $C_2H_2$ —$H^+$ | Acetylene | (Vita et al. 2015)[#] | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 33.033 | $CH_4O$—$H^+$ | Methanol | (Risholm-Sundman et al. 1998)*; (Maleknia et al. 2007)[#*] | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 39.020 | $C_3H_2$—$H^+$ | Isoprene fragment | (Maleknia et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 41.038 | $C_3H_4$—$H^+$ | Alkyl fragment: propadiene | (Brilli et al. 2014)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 43.050 | $C_3H_6$—$H^+$ | Alkyl fragment: propene | (Brilli et al. 2014) [#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 45.033 | $C_2H_4O$—$H^+$ | Acetaldheyde | (Risholm-Sundman et al. 1998)*; (Filella et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 47.012 | $CH_2O_2$—$H^+$ | Formic acid/Formates | (Sánchez Del Pulgar et al. 2014)[#] | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 47.049 | $C_2H_6O$—$H^+$ | Ethanol | (Maleknia et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 49.011 | $CH_4S$—$H^+$ | Methanethiol | (Papurello et al. 2012)[#]; (Blake et al. 2009)[#] | * | * | * | * | - | - | * | - | - | * | * | * | - |
| 53.040 | $C_4H_4$—$H^+$ | Alkyl fragment or cyclobutadiene | (Sánchez Del Pulgar et al. 2014)[#] or (Vita et al. 2015)[#] | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 55.055 | $C_4H_6$—$H^+$ | C4 aldehydes fragment | (Sánchez Del Pulgar et al. 2014)[#] | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 59.049 | $C_3H_6O$—$H^+$ | Acetone (2-propanone) | (Risholm-Sundman et al. 1998)*; (Maleknia et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 61.028 | $C_2H_4O_2$—$H^+$ | Acetic acid | (Risholm-Sundman et al. 1998)*; (Maleknia et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 69.036 | $C_4H_4O$—$H^+$ | Furan | (Maleknia et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 69.069 | $C_5H_8$—$H^+$ | Isoprene (1,4-pentadiene) | (Maleknia et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 75.043 | $C_3H_6O_2$—$H^+$ | Propanoic acid or Hydroxy-2-propanone (acetol) | (Papurello et al. 2012)[#] or (Brilli et al. 2014) [#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 77.038 | $C_6H_4$—$H^+$ | Alkyl fragment | (Goacher et al. 2010)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 79.054 | $C_6H_6$—$H^+$ | Phenyl ion or benzene | (Maleknia et al. 2007)[#]* or (Brilli et al. 2014)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 81.070 | $C_6H_8$—$H^+$ | Monoterpenes fragment | (Maleknia et al. 2007)[#]*; (Grabmer et al. 2006)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 83.085 | $C_6H_{10}$—$H^+$ | C6 compounds: hexanal fragment or hexenol fragment | (Soukoulis et al. 2013)[#] or (Brilli et al. 2014)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 89.059 | $C_4H_8O_2$—$H^+$ | Ethyl acetate or methyl-propanoate | (Yener et al. 2015)[#] | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 91.054 | $C_7H_6$—$H^+$ | Xylene fragment | (Maleknia et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 93.069 | $C_7H_8$—$H^+$ | p-Cymene fragment or toluene | (Maleknia et al. 2007)[#]* or (Holzinger et al. 2000)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 95.086 | $C_7H_{10}$—$H^+$ | Monoterpene fragment | (Maleknia et al. 2007)[#]* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 97.028 | $C_5H_4O_2$—$H^+$ | Furfural | (Brilli et al. 2014)[#]*; (Fernández de Simón et al. 2009)* | * | * | * | * | * | - | * | * | - | - | * | * | - |
| 99.080 | $C_6H_{10}O$—$H^+$ | Hexanals | (Brilli et al. 2014)[#]* | * | * | * | * | * | - | - | - | - | * | - | * | - |
| 101.059 | $C_6H_{12}O$—$H^+$ | Hexanal | (Risholm-Sundman et al. 1998)*; (Brilli et al. 2014)[#]*; (Roffael et al. 2015)* | * | * | * | * | * | * | * | * | - | - | * | * | * |

| Measured m/z | Protonated formula | Tentative identification | References (PTR-MS #; Wood (plant and solid wood)*) | Code species number | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 105.069 | $C_8H_8$—$H^+$ | Olefin or styrene/ethylbenzene | (Brilli et al. 2014)#* or (Yener et al. 2015)# | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 107.049 | $C_7H_6O$—$H^+$ | Benzylaldehyde | (Yener et al. 2015)#; (Roffael et al. 2015)* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 107.085 | $C_8H_{10}$—$H^+$ | Monoterpene fragment or p-xylene/ ethylbenzene | (Maleknia et al. 2007)#* or (Brilli et al. 2014)#* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 123.116 | $C_9H_{14}^+$—$H^+$ | Sesquiterpene fragments | (Demarcke et al. 2009)# | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 135.117 | $C_{10}H_{14}$—$H^+$ | p-Cymene | (Maleknia et al. 2007)#*; (Courtois et al. 2009)* | * | * | * | * | * | * | * | * | - | * | * | * | * |
| 137.137 | $C_{10}H_{16}$—$H^+$ | Monoterpenes | (Risholm-Sundman et al. 1998)*; (Maleknia et al. 2007)#* | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 153.126 | $C_{10}H_{16}O$—$H^+$ | Terpenoid-like compound/ ion of oxygen-containing terpenes | (Maleknia et al. 2007)#*; (Courtois et al. 2009)* | * | * | * | * | * | * | * | * | - | * | * | * | - |
| 169.090 | $C_9H_{12}O_3$—$H^+$ | 4-methylsiringol | (De Sińon et al. 2009)* | * | * | * | - | * | - | - | - | - | - | - | - | - |
| 189.165 | $C_{14}H_{20}$—$H^+$ | n.a. | n.a. | * | * | * | * | - | - | - | - | - | - | * | - | - |
| 203.180 | $C_{15}H_{22}$—$H^+$ | n.a. | n.a. | * | * | * | * | - | - | - | - | - | - | * | * | - |
| 205.195 | $C_{15}H_{24}$—$H^+$ | Sesquiterpenes | (Courtois et al. 2009)* | * | * | * | * | * | * | * | * | - | * | * | * | - |

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