Abstract

The lipophilic and hydrophilic extractives in the sapwood (sW) and heartwood (hW) of stems from *Pinus halepensis* Mill and *Eucalyptus camaldulensis* Dehnh trees grown in the north of Algeria were analyzed. The extraction of dried samples was carried out in an accelerated solvent extractor (ASE). The lipophilic substances were first extracted with *n*-hexane and then the hydrophilic ones with acetone/water. The extractives were analyzed by gas chromatography-flame ionization detection (GC-FID), GC-mass spectroscopy (MS) and high-performance size-exclusion chromatography (HPSEC). The largest amount of lipophilic extractives (≈13.4 mg g^{-1}) was observed in the hW of *P. halepensis*, while the hW of *E. camaldulensis* contained the largest amount of hydrophilic extractives (≈116.3 mg g^{-1}). Lipophilic extractives are mainly composed of oleoresins (resin acids, terpenes), fats (fatty acids, glycerides, steryl esters, sterols) and waxes (fatty alcohols). Hydrophilic extractives are composed of polyphenols (stilbenes, flavanols), sugars (monosaccharides) and sugar alcohols (cyclic polyols). The main identified lipophilic extractives are resin acids in pine and glycerides in eucalypt. The main identified hydrophilic extractives are cyclic polyols in pine and flavanols and monosaccharides in eucalypt. The total content of extractives is higher in hW than in sW.