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Tannin, flavonoid and terpenoid contents of some wood Barks' extracts

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Abstract: In this study, solid extracts of some barks of deciduous and coniferous species were obtained through Soxhlet extraction method using water (hot), methanol and chloroform as solvents. eight wood species were selected such as oriental beech (*Fagus orientalis*), olive (*Olea europaea* L.), pedunculate oak (*Quercus robur*), sweet chestnut (*Castanea sativa*) as deciduous species, and also, scots pine (*Pinus sylvestris*), black pine (*Pinus nigra*), calabrian pine (*Pinus brutia*), Nordmann fir (*Abies nordmanniana* subsp. bornmulleriana) as coniferous species. Moreover, tannin, flavonoid and terpenoid contents were determined by phytochemical screening methods in obtained extracts. As a result of extraction process, the highest yields were found as 25,40%, 19,69% (in calabrian pine extract) and 37,69% (in black pine extract) in hot water, chloroform and methanol, respectively. Tannin presence in hot water extracts, flavonoid presence in methanol extracts, terpenoid presence in chloroform extracts were investigated. According to phytochemical experimental results, tannin was determined in all hot water extracts apart from Nordmann fir. Flavonoids were detected In the methanol extracts of sweet chestnut, oriental beech, scots pine and olive barks. Finally, in the chloroform extracts, terpenoids were detected in the bark of Nordmann fir, oriental beech, scots pine, calabrian pine and black pine. As a result, it was found that the yields of bark extraction process yields were high and the content of the extracts was very rich.
Keywords: Wood Bark, Extract, Tannin, Flavonoid, Terpenoid

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