



Antibacterial Activity and Chemical Composition of *Vitex agnus castus* Fruits Essential Oils from Mbishkodra, Albania

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Abstract: In the present study, the chemical composition and antimicrobial activity of *Vitex agnus castus* L. fruits essential oils originating from Mbishkodra, Albania, was investigated. The GC and GC/MS analyses of the fruits oils revealed that the major constituents identified were 1,8-cineole (14.23%), sabinene (8.22%), β -farnesene (7.51%), α -terpinyl acetate (7.15%), β -caryophyllene (6.87%), sclareol (6.37%) *ect.* The major group of components are the oxygenated monoterpenes with 26.39%. To evaluate the in vitro antibacterial activity of the essential oils, the disk diffusion testing method was used. *Salmonella enteritidis* (PTCC 1091), *Escherichia coli* (PTCC 1330) and *Staphylococcus aureus* (PTCC 1112) were used as standard test bacterial strains. The Mbishkodra fruits essential oils exhibit antibacterial activity against all test bacteria. The activity was stronger against *S. aureus*.

Keywords: *Vitex agnus castus*, *verbenaceae*, *sabinene*, β -*farnesene*, *antibacterial activity*.

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