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Nepetalactones and Other Constituents of Nepeta nuda ssp. Albiflora

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Abstract: The hexane extract of Nepeta nuda ssp. albiflora led to the isolation of six known monoterpene nepetalactones, 4α , 7α , $7\alpha\alpha$ -nepetalactone (1), $4\alpha\alpha$, 7α , $7\alpha\beta$ -nepetalactone (2), $4\alpha\beta$, 7α , $7\alpha\beta$ -nepetalactone (3), $4\alpha\beta$, 7α , $7\alpha\alpha$ -nepetalactone (4), $4\alpha\alpha$, 7β , $7\alpha\beta$ -nepetalactone (5), 3α -hydroxy- $4\alpha\alpha$, 7α , $7\alpha\alpha$ -dihydron\-epe\-tal\-actone (=nepetalic acid) (6) and a dimeric 5,9-dehydronepetalactone (7) along with two known steroids β-sitosterol and sitosterol 3-one and a triterpene betulinic acid. The acetone extract of the same plant afforded compound 7 in a higher yield in addition to compounds 2 and 6, and sesquiterpene caryophyllene oxide, the iridoid glucoside 1,5,9-epideoxyloganic acid, the triterpenoids oleanolic, ursolic and betulinic acids, and sitosterol 3β-glucoside.

Key Words: Nepeta nuda ssp. albiflora; Lamiaceae; nepetalactones; dimeric 5,9-dehydronepetalactone; sesquiterpene; triterpenoids; steroids.

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