



Isolation and Identification of Terpenoids and Sterols of *Nepeta cataria* L.

Hemaia, M. Motawe¹; Faten, M. Ibrahim^{2*}; Mohamed, E. Ibrahim²;
Ebtissam, A. Mahmoud³; Hanan, F. Aly⁴

¹Department of Pharmacognosy, Pharmaceutical and Drug Industries Research
Division, National Research Center, Egypt

²Medicinal and Aromatic Plants Research Department,
National Research Centre, Egypt

³Biochemistry Department, Faculty of Agriculture, Cairo Univ., Egypt

⁴Therapeutic Chemistry Department, Pharmaceutical and Drug Industries Research
Division, National Research Center, 33 El Bohouth Street (Former El Tahrir Street),
P.O. Box 12622, Dokki, Giza, Egypt

Abstract: Chemical analysis of the air dried flowering aerial parts of *N. cataria* showed moisture (6.2%); ash (7.9%); crude fiber (15.57%); crude protein (9.13%); crude lipid (4.88%) and carbohydrate (62.5%). Fixed oil extracted from the air dried flowering aerial parts of *N. cataria* contained lauric (3.7%); myristic (7.2%); palmitic (20.3%); stearic (18.6%); arachidic (4.1%); palmitoleic (9.6%); oleic (14.2%); linoleic (9.3%) and linolenic (5.8%) in sap part and unsap contained dodecane (3.95%); α -tocopherol (5.3%); pentacosane (0.84%); hexacosane (10.16%); nonacosane (6.83%); hentricontane (26%); dotriacontane (2.98%) and β -sitosterol (18.6%); stigmasterol (8.9%) and campsterol (6.52%). Identification of terpenoids and sterols of petroleum ether extract (40-60) of *Nepeta cataria* L. Four major compounds 1, 2, 3 and 4 were isolated by column chromatography; according to their order of elution. Their spectral characters proved them to be α - amyryne, ixoroside aglycone, β sitosterol and ursolic acid.

Key words: *Nepeta cataria*, sterols and triterpenes, fatty acids.

Hemaia, M. Motawe *et al* /Int.J. PharmTech Res. 2015,8(10),pp 10-17.
