

Chemical Composition of the Fixed and Volatile Oils of *Nigella sativa* L. from Iran

Bahman Nickavar^{a,*}, Faraz Mojab^a, Katayoun Javidnia^b, and Mohammad Ali Roodgar Amoli^a

^a Department of Pharmacognosy, School of Pharmacy, Shaheed Beheshti University of Medical Sciences, PO Box 14155-6153, Tehran, Iran. Fax: +98-21-8795008.
E-mail: bnickavar@yahoo.com

^b Department of Medicinal Chemistry, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran

* Author for correspondence and reprint requests

Z. Naturforsch. **58c**, 629–631 (2003); received February 18/March 31, 2003

The chemical composition of the extracted fixed oil (total fatty acid composition) and volatile oil of *Nigella sativa* L. seeds grown in Iran were determined by GC and GC/MS. Eight fatty acids (99.5 %) and thirty-two compounds (86.7 %) have been identified in the fixed and volatile oils, respectively. The main fatty acids of the fixed oil were linoleic acid (55.6 %), oleic acid (23.4 %), and palmitic acid (12.5 %). The major compounds of the volatile oil were *trans*-anethole (38.3 %), *p*-cymene (14.8 %), limonene (4.3 %), and carvone (4.0 %).

Key words: *Nigella sativa* L., Fixed Oil Composition, Volatile Oil Composition