Available on-line at http://dse.usab-tm.ro

Banat's Journal of Biotechnology

2011, II(4),

RELATIONSHIP BETWEEN VOLATILE COMPOUNDS OF OLIVE OIL AND SENSORY ATTRIBUTES

Shaker M. Arafat, Azza A. Ahmed

Oils & Fats Department, Food Technology Research Institute, Agriculture Research Centre. Giza, Egypt.
e–mail: dr_shakerarafat@yahoo.com

Abstract. This study was carried out to study some quality indices (acid value, peroxide value and UV absorption K_{232nm}, K_{270nm} and ΔK) of virgin olive oil of three varieties (Coratina, Koronakii and Picual) at two stages of ripening. Also, organoleptic tests phenolic content, α–tocopherol and oxidative stability measured by Rancimat method at 100°C were determined. Fatty acid composition and volatile compounds of virgin olive oil samples were analyzed by gas chromatography (GC) and gas chromatography mass spectrum (GC–MS) system. Twenty–five compounds were isolated and characterized by GC–MS. The presence of some of these compounds in virgin olive oil had not been previously reported. All results indicated that there was a wide variability in the chemical and aroma characteristics of the selected virgin olive oils.

Key words:*Olive oil, volatile compounds, quality indices, stability.*

Received: August1, 2011
Accepted: September 26, 2011