

Characterization of Sunflower Oil for Illustration of Its Components

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Abstract : Sunflower is cultivated all over the world not only as an ornament plant but also for the purpose of getting oil. It is the third most cultivated plant in the history because its oil considered best for health. The present study deals with the preparation of sunflower oil from commercial seed sample which was obtained from local market. The physicochemical properties of the oil were determined which included saponification value, acid value and ester value. Results showed that saponification value of the oil was 191.675, acid value was 0.64 and ester value to be 191.035 for the sample under observation. GC-MS analysis of sunflower oil was carried out to check its composition. Oleic acid was determined with linoleic acid and isopropyl palmitate. It represents the presence of three major components of sunflower oil. Other compounds detected were, p-toluylic acid, butylated hydroxytoluene, 1,2-benzenedicarboxylic acid, benzoic acid, 2,4,6-trimethyl-, 2,4,6-trimethylphenyl ester and 2,4-decadienal, (E,E).

Keywords : GC-MS, oleic acid, saponification value, sunflower oil

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