Mohamed Elwathig Saeed Mirghani

RAPID METHODS FOR ANALYSIS OF EDIBLE OILS AND FATS BY FOURIER TRANSFORM INFRARED SPECTROSCOPY

LAP LAMBERT Academic Publishing

TABLE OF CONTENTS

The objectives of this study were to develop fast, accurate, low cost, sensitive and environmentally friendly analytical methods for selected quality factors and minor components in edible oils and fats and their associated products using Fourier Transform Infrared (FTIR) spectroscopy. These analyses include soap residues in the chemically refined vegetable oils, quantifying hexane residues in the solvent extracted vegetable oils, detection of aflatoxins in groundnut and groundnut cake, the determination of malondialdehyde (MDA) as one of the thiobarbituric acid reactive substances (TBARS) in edible oils, the determination of minor components in edible oils such as sesamol and gossypol in sesame seed and cottonseed oils, respectively. In addition, the FTIR techniques were also be used to determine the adulteration of sesame seed oil with other vegetable oils and lard in body fats of chicken, lamb and cow.

Mohamed Elwathig Saeed Mirghani
Associate Professor Dr. Mohamed Elwathig Saeed Mirghani. Department of Biotechnology Engineering, Faculty (Kulliyyah) of Engineering, International Islamic University Malaysia (IIUM). A Sudanese, born at Karmakol, Eddebbah, Northern State, SUDAN.
ACADEMIC QUALIFICATIONS: First Degree: Cairo, Egypt MSc: U of G, Sudan PhD: UPM, Malaysia

978-3-8383-3942-9

Mohamed Elwathig Saeed Mirghani
LIPIDS ANALYSIS BY FTIR SPECTROSCOPY