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agric@tubitak.gov.tr

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Investigation on Changes in Physical and Chemical Properties of Palm Kernel Oil During Hydrogenation

İhsan KARABULUT İnönü Üniversitesi, Mühendislik Fakültesi, Gıda Mühendisliği Bölümü, Malatya -TÜRKİYE Muammer KAYAHAN Ankara Üniversitesi, Ziraat Fakültesi, Gıda Mühendisliği Bölümü, Ankara - TÜRKİYE

<u>Abstract:</u> Palm kernel oil was hydrogenated discontinuously for a period of 100 min at 165°C and 2,5 atm in the presence of nickel catalyst (%0,18). The changes in iodine number, fatty acid composition, trans fatty acid content and solid fat content during the hydrogenation were investigated for samples taken at 10 min intervals. According to the findings, while iodine number was gradually decreased during the reaction, trans fatty acid content increased significantly. Reaction conditions had increased effect on stearic acid formation from monoens. Trans fatty acid and total saturated fatty acid amounts increased proportionally with increase in SFC values.

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