VISCOSITY AND DENSITY ANALYSIS OF GREEN COFFEE OIL (*Coffea arabica*) OBTAINED BY CONVENTIONAL AND SUPERCRITICAL FLUID EXTRACTION

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Coffee’s popularity, allied to its economic importance, explains the research interest in the products from this commodity with a focus on composition and its effects on human health. Coffee oil is composed mainly of triacylglycerols with fatty acids in proportions similar to those found in edibles vegetable oils. The unsaponifiable coffee oil fraction is rich in diterpenes especially cafestol and kahweol which have quimioprotetor activity. The oil from green and roasted coffee is industrially obtained by pressing, but researches have been developing more efficient extraction methods in order to preserve their minor components. The green coffee crude oils (*Coffea Arabica*, variety Yellow Catuai) obtained by pressing from the producers of São Paulo state (Brazil) and the one obtained by supercritical fluid extraction (SFE) at 300 bar and 80°C were vacuum filtered. The density was analyzed using a digital densimeter DMA4500 (Anton Paar) and the viscosity using an automatic micro viscometer AMVn (Anton Paar) at 25, 35, 45 and 55 °C and different angles. The green coffee oil from pressing presented density varying from 0.93911 g/cm³ to 0.91881 g/cm³. For dynamic viscosity, the mean of the measurements varied from 65.0618 mPa.s to 29.6277 mPa.s. The green coffee oil from SFE was clearer than the green coffee oil from conventional method with density values ranging from 0.94405 g/cm³ to 0.92327 g/cm³. The mean of dynamic viscosities varied from 71.8095 mPa.s to 25.9275 mPa.s. These results show the considerable influence of the oil extraction process in these physical properties.