ABSTRACT

Thermal effusivity of virgin coconut oil-methanol mixtures were measured using open photoacoustic cell technique. The samples were prepared by simply mixing virgin coconut oil and methanol using similar procedure applied for preparation of biodiesel. Thermal effusivity of the sample was obtained by fitting the experimental data of photoacoustic amplitude signal to the expression of photoacoustic signal as a function of chopping frequency. Thermal effusivity of mixtures decrease between 0.0851 W s$^{1/2}$ K$^{-1}$ cm$^{-2}$ (pure virgin coconut oil) and 0.0644 W s$^{1/2}$ K$^{-1}$ cm$^{-2}$ (pure methanol) with the increasing of methanol in the mixture.

**Keyword:** Photoacoustic cell; Virgin coconut oil; Methanol; Biodiesel; Methanol mixture