On the Influence of the Coupling Fluid in Auto-Normalized front Photopyroelectric Method to Measure Thermal Effusivity in Solids

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A study on the influence of the coupling fluid in the measurement of the thermal effusivity using auto-normalized front photopyroelectric technique in solids is presented. It is demonstrated theoretically that due to the coupling fluid, the thermal effusivity is underestimated. The limits of this technique, when is applied to solid samples, are discussed.