IDENTIFICATION OF SPECTRAL RADIATIVE PROPERTIES OF POLYURETHANE FOAM FROM HEMISPHERICAL AND BI-DIRECTIONAL TRANSMITTANCE AND REFLECTANCE MEASUREMENTS

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ABSTRACT. Spectral radiative properties (absorption coefficient, scattering coefficient and phase function) of open cell polyurethane foam are determined from parameter identification method. This method uses spectral transmittance and reflectance measurements in the wavelength infrared region of [2-15 μm]. Different strategies of identification using different types of measurements (directional-hemispherical, combination of directional-directional and directional-hemispherical) are compared. The discrete ordinates method is used to solve the radiative transfer equation.