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IDENTIFICATION OF RADIATIVE PROPERTIES OF A QUARTZEL SAMPLE BASED ON SYMBOLIC MONTE CARLO METHODS

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ABSTRACT. Radiative quantities can be expressed as polynomials of absorption and scattering coefficients using Symbolic Monte Carlo (SMC) methods. In this work, SMC polynomials are used to analyze the identifiability of absorption and scattering coefficients from spectroscopic measurements of directional-hemispherical transmittance and reflectance. The approach is applied here to identify absorption and scattering coefficients of a Quartzel sample, a low density felt used as an insultation material.