SEARCH

Spectral characteristics and structure of porous glasses

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Keywords

porous glass, optical characteristics, Rayleigh scattering, refractive index, absorption, porosity, Gurevich-Kubelka–Munk formulae

Abstract

The paper presents a method for the size estimation of scattering structures in porous glasses, being based on measurements of both the sample reflection and transmission. Analysis of the transmission spectra allows us to estimate the contribution of absorption and scattering to light extinction and to choose a wave range where the characteristics of a medium can be determined by means of simple and effective models. Optical characteristics of the highly light scattering samples can be obtained with use of the Gurevich-Kubelka-Munk method.

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