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A goniometric measurement system for reflectivity, diffusivity and transmittivity characterization in the VUV range.

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The characterization in the VUV range of reflectivity, diffusivity and transmittivity of various components plays a crucial role in understanding and optimizing the performance of particle detectors exploiting the scintillation light coming from liquefied noble gases.

To this purpose a goniometric measurement system has been realized. The light produced by a deuterium lamp is wavelength selected by means of a diffraction grating with a resolution of few nanometers. The monochromatic light hits the sample under test. A calibrated VUV detector, mounted on a goniometric system, sample the transmitted and scattered photons at different angles.

In this presentation, the main technical characteristics and performances of the system are shown together with results coming from preliminary tests on different materials.

Collaboration

Role of Submitter

I am the presenter

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