

Название публикации:

Transition Radiation in a Waveguide Filled with Periodically Modulated Medium

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Аннотация:

The article is devoted to the study of the transition radiation of the source (charged particle), which moves perpendicular to the axis of the waveguide with modulated anisotropic filling. The special attention is given to characteristics of this radiation in the region of "strong" interaction. The transition radiation energy for the TE field in the waveguide is calculated in the above-mentioned region in view of small modulation depths. It is shown that under certain conditions Cerenkov radiation can arise in the region of strong interaction.

Ключевые слова:

Waveguide; periodically modulated anisotropic magnetodielectric medium; transition radiation