Electromagnetic wave diffraction by bi-periodic thin conductive grating

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Abstract

© 2015 I.E. Pleshchinskaya, N.B. Pleshchinskii and I.V. Sabirov. It has been proved that the electromagnetic wave diffraction problem by bi-periodical grating of thin conductive strips can have only one solution. Therefore, only Floquet wave can appear by the diffraction of the plane wave by the grating. The diffraction problem is reduced to regular infinite set of linear algebraic equations by method of integral- summatorial identities.

Keywords

Bi-periodical grating, Diffraction problem, Electromagnetic wave, Floquet wave, Uniqueness theorem