Multiple omnidirectional reflection bands from half-wave layered periodic structures

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Keywords

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Abstract

The paper is concerned with one-dimensional multilayers that exhibit multiple bands of omnidirectional reflection, which means complete reflection regardless of incidence angle and polarization. The typical quarter-wave constraint is replaced by the stipulation that a pair of adjacent layers should have a total optical thickness of one half of wavelength. Simple approximate analytic expressions are derived for the multiple bandgaps of the half-wave periodic structures.

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