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The influence of the disorder in the omnidirectional photonic band gap for one-dimensional photonic crystals DIEGO SOTO-PUEBLA, JESUS MANZANARES-MARTINEZ, Departamento de Investigacion en Fisica, Universidad de Sonora — In this work we study the influence of the disorder in the omnidirectional photonic band gaps. Even if recently has been reported different results on the influence of disorder in the optical properties of disorder in one-dimensional photonic crystals. Most of these studies have been focused on the influence of disorder to the light transmission in the ballistic direction using transfer matrix methods. In difference, we focus in the influence of disorder in the omnidirectional photonic band gap. We present calculations of projected band structure by using the Plane Wave Method with a supercell technique. We perform numerical calculations of the supercell Fourier coefficients in order to study different disorder configurations. The intricate information of the supercell projected band gaps is discriminate by the consideration of the group velocity.

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