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Properties of One Dimensional Layered DPS/DNG Photonic Crystal: Transmission and Reflection JOSEPH SHAHBAZIAN, ARAM KARAKASHIAN, UML — In this project the main goal is to study the refraction and reflection of a one dimensional photonic crystal with alternating layers of DNG and DPS materials. The material's optical parameters, electric permittivity and magnetic permeability, are complex and frequency dependent. Here we present the refraction and reflection and also non-Bragg band gaps in a one dimensional photonic crystal composed of DNG and DPS layers. Our center of attention is the study of the zero permittivity, zero permeability and zero average refractive index gaps and the transmission and reflection of photons.

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