

Abstract Submitted  
for the MAR14 Meeting of  
The American Physical Society

**Transmission properties of 2D metamaterial photonic crystals<sup>1</sup>**

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— By using the finite difference time domain technique, we have performed a theoretical study of the transmission properties in 2D photonic crystals composed by circular cylindrical metamaterial rods. Numerical transmission spectra was compared with its corresponding photonic band structure in the case of an infinite periodic 2D array obtaining a very good agreement. On the other hand, we have characterized the corresponding symmetries for this system and the results were compared with its corresponding conventional plasmonic metamaterial counterpart. This work has been partially supported by the CENM-UNIVALLE.

<sup>1</sup>J.R. M-S is funded by the Colombian Agency COLCIENCIAS.

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Date submitted: 14 Nov 2013

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