

Fano resonance in quadratic waveguide arrays

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We study resonant light scattering in arrays of channel optical waveguides in which tunable quadratic non-linearity is introduced as nonlinear defects by periodic poling of single (or several) waveguides in the array. We describe novel features of wave scattering that can be observed in this structure and show that it is a good candidate for observation of Fano resonance in nonlinear optics.

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