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# Interference based square lattice photonic crystal logic gates working with different wavelengths

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## Highlights

- Interference based photonic crystal OR, XOR, NOT and AND optical logic gates are realized.
- For XOR and NOT gates the contrast ratio is more than 35 dB for particular wavelengths.
- All these logic gates are capable of operating with multiple wavelengths.
- The impact of radius on the operating wavelength and contrast ratio is analyzed.