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Introduction

The optical properties of photonic crystal and photonic bandgap (PBG) structures have been extensively studied over the past 10 years. Most of the attention has been devoted to calculations and measurements of their static properties. It is only recently that the response of PBG structures to external perturbations has started to be investigated. Already, promising results have been demonstrated, ranging from light emission modification and steering to optical switching and the detection of chemical and biological species. This proceedings represents a sampling of the work being conducted in this emerging field of functional PBG structures.

> Florencio Garcia-Santamaria Ganapathi S. Subramania Sharon M. Weiss