Photonic Crystal and Photonic Wire Technologies and Devices

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Photonic crystals and photonic wires are important areas of research
for materials technology. This presentation will review recent work
on both two-dimensional waveguide photonic crystal structures and on
developments towards more control in the formation and operation of
self-organised, opal-type, three-dimensional photonic crystal
structures. The photonic-wire approach for compact, high-confinement,
optical waveguides and devices structures has now been recognised as
having much promise. Its role as competition for and as a complement
to the planar photonic crystal approach will be considered. The
potential importance of multi-level schemes for organising planar
technologies based on either or both the photonic crystal and
photonic wire approaches will be discussed.