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Sommario/riassunto	Increased interest has been focused on fabricating three dimensional (3D) photonic crystals (PCs) in order to obtain CBGs. Theoretical analysis showed that although CBGs can be obtained by diamond structure, a strict condition should be satisfied, i.e., the modulation of the refractive index of the material used should be larger than 2.0. Therefore, attention was paid to finding the materials with high refractive index. Some scientists tried to fill the templates with high refractive index materials to increase the modulation of the refractive index, and CBGs were obtained. However, the CBGs achieved in 3D PCs were mostly in microwave or infrared regions. This book presents and discusses various advances in this field of research.