

THREE DIMENSIONAL POLIMERIC PHOTONIC CRYSTALS

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Here we present our latest results regarding the fabrication and characterization of three dimensional photonic structures starting from polymeric templates. Polymeric photonic matrices (polystyrene or pmma) have some advantages versus their inorganic counterparts (i.e. silica) when used as templates. Submicron polymeric spheres can be arranged in 3D and used to fabricate photonic nanostructures in different materials (ZnO, Silicon, SiO₂, etc.), enhancing or tailoring their properties.