



## Fluorescence Properties of Photonic Crystals Doped with Perylenediimide

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### Résumé en anglais

This study aims to present the fabrication of colloidal photonic crystals (PC) with increased fluorescence properties. The use of a highly fluorescent perylenediimide derivate (PDI) during the soap-free emulsion polymerization of styrene-acrylic acid resulted in monodisperse core-shell particles which allowed the fabrication of PC films. The properties of the hybrid material were studied in comparison with hybrid materials obtained by impregnation of films with chromophore solutions. In both cases an increase of the fluorescence response was observed in addition to a blue shift for the PDI core particles, proving the incorporation of the dye inside the copolymer particles.

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### Liens

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