



## Monomer type emission of perylenediimide derivatives doped polymer particles

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Mots-clés	Core-shell [5], fluorescence [6], Perylenediimide [7], Photonic [8], Soap-free [9]
Résumé en anglais	<p>This study aims to present the fabrication of colloidal photonic crystals (PCs) doped with perylenediimide (PDI) derivatives. Monodisperse PDI doped core-shell polymer particles have been obtained by employing a soap-free emulsion polymerization process of styrene and 2-hydroxyethylmethacrylate with the chromophore solubilized in the organic phase. The obtained polymer colloids allowed the fabrication of PC films that have been investigated by UV-vis and fluorescence spectroscopy. The hybrid materials have been investigated in comparison with PCs doped by the classical impregnation method. Thus, the doping using soap-free emulsion polymerization resulted in the obtaining of PDI doped core-shell polymer particles exhibiting monomer emission, whereas by employing an impregnation doping method H-type aggregates are formed.</p>
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua2802">http://okina.univ-angers.fr/publications/ua2802</a> [10]
DOI	10.1016/j.colsurfa.2012.02.051 [11]

### Liens

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