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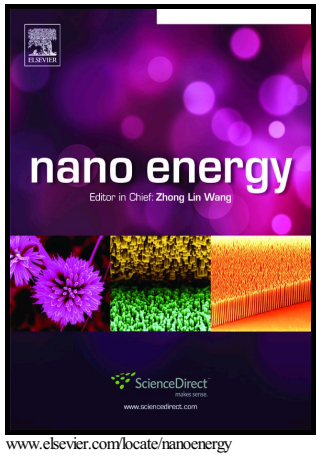

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Self-organized Cholesteric Liquid Crystal Polymer Films with Tunable Photonic Band Gap as Transparent and Flexible Back-reflectors for Dye-sensitized Solar Cells

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Abstract

Dye-sensitized solar cells (DSCs) have attracted widespread attention in recent years, attributed to their low production costs, facile fabrication and tunable optical properties. In order to achieve competitive conversion efficiencies, the sunlight harvesting capacities of DSCs should be improved over a broad range of wavelengths and incidence angle. Here, we demonstrate a facile strategy to enhance the light absorptions of the devices via employing self-organized cholesteric liquid crystal (CLC) polymer films as transparent and

[1] These authors contributed equally to the work

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