

펜타신/C₆₀ 유기 박막 태양전지

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Organic Thin-Film Solar Cells Based On Pentacene and C₆₀

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Key words : pentacene(펜타신), organic solar cells(유기 태양전지), photocurrent modeling.
(광전류 모델링), exciton(엑시톤), encapsulation(봉지)

Abstract : Recent advances in pentacene/C₆₀-based organic solar cells (OSCs) are presented. Motivation of using pentacene as a hole-transporting photoactive layer in OSCs is illustrated by modeling its photocurrent action spectra using exciton diffusion model that incorporates the effect of finite exciton quenching at metal/organic interfaces. Study on the air-sensitivity of pentacene/C₆₀-cells is then described, and strategies for proper encapsulation of OSCs are discussed.

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