

Improvement of Quantum Dots dispersion for high luminescent efficiency of QD/PDMS coating

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White light emitting diodes are known as LCD back lighting application and a potential solid-state lighting source because of their long lifetime and low power consumption. We used QD/Polymer film to coat on top of blue LED to produce white LED. In this work we fabricated QD/PDMS film using double-shell quantum dots. Double-Shell quantum dots have higher quantum efficiency and higher stability in polymer than general quantum dots. Various substances were used as surface modifier of quantum dots to find out the effect on dispersion.