

## Cross-Linkable Hole Transporting Materials for Solution Processed Multilayer Structure Organic Light Emitting Diodes

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Organic light emitting diodes has multilayer structure to confine hole and electrons in the emitting layer. However, it is difficult to form a multilayer structure using a solution process; because the underlying layer can be damaged by the upper layer solvent during a conventional solution process. The solubility of the deposited film must be adjusted to form a multilayer structure in solution process. Therefore, thermally cross-linkable styrene unit was employed in the hole transporting material and could reduce solubility of hole transporting material after thermal annealing. Multilayer structure organic light emitting diodes could be fabricated using a cross-linkable hole transporting material and device showed maximum quantum efficiency of 14.5%.

### Biography:

Dr. Kyoung Soo Yook is an Assistant Professor in School of Chemical Engineering at Sungkyunkwan University. He received his Ph.D. from Dankook University, in 2012. His research focused on the development of devices structures for solution and vacuum deposited phosphorescent and TADF organic light emitting.