

## Electroluminescence from an ionic small molecule for solid state lightings

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Light-emitting electrochemical cells are the future lighting sources for flat-panel displays and solid state lighting. Mainly LECs are two types, p-LECS and Ir-ITMCs. Polymer light-emitting electrochemical cells are tri-component blend containing emitting polymer, an ion-conducting polymer and an inorganic salt. The enormous number of research have been focused on cationic iridium complexes due to the phosphorescent, color tuning and an ionic nature of Ir-ITMCs. Recently organic small molecule have been widely used as a light-emitting materials in light-emitting electrochemical cells. The first device was reported by Tang et al. by employing neutral small molecule and the structure of the device was as same as the p-LEC. The molecule which is an ionic apart from Ir-ITMCs have great attentions. We designed and synthesized an ionic organic small molecules in multi-step synthetic procedure having strong luminescence and good charge transporting capabilities. A complete structural, photophysical, electrochemical and electroluminescent properties were investigated.