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Vapor deposition of tin doped aluminium coating on glass substrate for cathode material in light emitting diode applications

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Abstract

Aluminium paste above which salts like LiF are used for cathode material. But these salts are hygroscopic in nature and they may migrate to the effective layer and affect the device characteristics. So our aim is to develop a low work function salt free conductive cathode layer which can be applied at low temperature. Resistive heating evaporation technique is used to coat tin doped aluminium coating on glass substrates for reflecting cathode material in LED applications. The current vs voltage characteristics show good conducting nature of the thin film and good reflectance properties also, but the film has poor mechanical properties. Further studies are going on to develop a conducting polyaniline layer on the coated film.