

Light Emitting Electrochemical Cells using Polyfluorene/ Ionic Liquid Blend as Luminescent Layer

미둔, 김효민, 차상윤, 권이슬, 최영선*
부산대학교
(choe@pusan.ac.kr*)

The story of electroluminescent polymer has only the age of a couple of decades. Apart from its application in Organic Light Emitting Diodes (OLEDs), researchers all over the globe are looking forward to Light Emitting Electrochemical Cells (LEECs); due to its excellent processibility and simplicity. Among various polymer systems, the one with fluorene backbone has been studied extensively. Herein we report the synthesis, characterization and electroluminescent properties of a polymer with fluorene monomer. It was well characterized by various physico chemical methods like UV-vis, ^1H , ^{13}C nmr, IR spectroscopies and the thermal stability was studied by TGA. Average molecular weight was determined by GPC. The electroluminescent characteristics in the thin film were also studied. Different ionic liquids were incorporated to the polymer and variation in the electroluminescence was also studied.