World Academy of Science, Engineering and Technology
International Journal of Materials and Metallurgical Engineering
Vol:15, No:12, 2021

Modification of ZnMgO NPs for Improving Device Performance of Quantum Dot Light-emitting Diodes

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Abstract : We demonstrated a new positive aging methods of QLEDs devices that can apply in large size inkjet printing display. Conventional positive aging method using photo-curable resin remains unclear mechanism of the phenomenon and also there are many limitations to apply large size panels in commercial process. Through the photo acid generator (PAG) in ETL Ink, we achieved 90% of the efficiency of the conventional method and up to 1000h life time stability (T80). This techniques could be applied to next generation of QLEDs panels and also can prove the working mechanism of positive aging in QLED related to modification of ZnMgO NPs.

Keywords : quantum dots, QLED, printing, positive aging, ZnMgO NPs
Conference Title : ICQD 2021 : International Conference on Quantum Dots
Conference Location : Paris, France
Conference Dates : December 30-31, 2021

Open Science Index, Materials and Metallurgical Engineering Vol:15, No:12, 2021 publications.waset.org/abstracts/144707.pdf