

ZnO in Semiconductor Industries

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ZnO thin film transistors (TFTs), due to high electron mobility and visible transparency, has been used as an alternative to amorphous silicon TFTs for use in flat panel displays. ZnO is also an industries fabrication friendly material because of lower deposition temperatures than polycrystalline silicon and a higher mobility than amorphous silicon. The purpose of this talk will focus on ZnO thin film fabrications in two systems: Atomic layer depositions (ALDs) and solution based fabrications. Based on my research result a detailed analyze is displayed for this two different fabrication systems. Two different applications based on refreshing rate, head up devices (HUDs) and portable artificial reality (p-AR), are explained. Challenges and solutions of ZnO thin film deposition in nowadays manufacturing industries are also included in this talk.

Biography:

Dr. Yang Xi graduated from The University of Texas at Dallas in 2015 as Ph.D. in materials science and engineering. During his Ph.D. study he focused on 2D-semiconductor fabrication and devices design. Also his research covered low-k organic materials, PVDF fibers, nanomaterials and porous materials. Dr. Yang Xi is working in Diodes Inc., (NASDAQ: DIOD) for semiconductor fabrication system quality design and new devices failure analysis.