Oral Presentation

[AMD4]Emerging TFTs

Chair: Hyun Jae Kim (Yonsei Univ.)
Co-Chair: Yosei Shibata (Tohoku Univ.)
Thu. Nov 28, 2019 9:00 AM - 10:20 AM Mid-sized Hall B (1F)

10:05 AM - 10:20 AM

[AMD4-5L]Improving Performances of Oxide Phototransistors Using a Mechano-Chemically Treated Porous Structure as The Visible Light Absorption Layer

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Keywords:Oxide TFT, Photosensor, Visible light, Mechano-chemical treatment

In this research, we suggest indium gallium zinc oxide (IGZO) thin film transistors (TFTs) for detection of visible light using a porous oxide layer (POL) resulting from mechano-chemical treatment. When compared with conventional IGZO TFT, the IGZO TFT with the POL exhibits photoresponsivity of 341.32 A/W, photosensitivity of 1.10×10^{6}, and detectivity of 4.54×10^{10} Jones under 532 nm light illumination.