Poster Presentation

[AMDp1]Oxide TFTs

Thu. Nov 28, 2019 10:40 AM - 1:10 PM Main Hall (1F)

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[AMDp1-22L]Improved pH reliability of solution-processed In_2O_3 field-effect transistors via Ga doping and different annealing temperatures

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Studies of metal oxide semiconductors-based biosensors have focused on detection properties done typically by specific target receptor attachment. However, the exploration of metal oxide semiconductors with different physical and chemical properties has still not been considered widely through an understanding of the liquid-solid interface. In this study, we examined the effect of different Ga content on solution-processed indium oxide films and their transistors. As a result, we confirmed that surface defects could be suppressed by the addition of Ga, which affected the pH reliability of devices under different pH environments.