Contribution ID: **50** Type: **Oral**

Synthesis of ZnO Thin Films Using the Sol-Gel Method and Ion Beam Irradiation

Thursday, November 14, 2024 2:30 PM (20 minutes)

ZnO thin films are semiconductor films used in LEDs. Using the sol-gel method, a ZnO precursor solution is prepared and deposited via spin-coating. Subsequent heat treatment at temperatures above 200℃ results in the formation of ZnO thin films. However, when utilizing ZnO thin films on flexible substrates, the temperature cannot exceed 200℃. Additionally, ZnO thin films produced at 200℃ contain residual organic compounds, necessitating heat treatment above 300℃. To address this issue, we propose the fabrication of ZnO thin films using ion beam irradiation. This method aims to achieve high-temperature annealing effects on the surface and verify the synthesis of ZnO thin films. Furthermore, techniques such as FT-IR will be employed to analyze the composition of residual organic materials and compare the differences with conventional methods.

Paper submission Plan

Best Presentation

Contribution track

KOPUA

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