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Type: **Poster Presentation**

Ion sputtering yield coefficients from In thin films bombarded by different energy Ar⁺ ions

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Noble gas ion sputtering combined with Auger analysis has been applied extensively to determine the elemental composition as function of sputtering depth. Data from these depth profiles have been used to determine the sputter yield coefficients (S) of elements that are of fundamental interests in many fields, such as in: sample preparations particularly where the sputter ion source is applied, surface cleaning (the surface is usually cleaned by cyclic ion bombardment and annealing), and understanding the theoretical studies of ion sputtering, etc. Many published data on the Auger-ion (Ar^+)

sputtering of indium (In) focused on In compounds like indium nitride (InN), indium phosphide (InP) etc. In this study, the focus is on metal In films that were grown by electron beam evaporation on silica substrates. The APPH's (Auger peak to peak heights) were measured while the In films were subjected to different energy Ar^+ ion sputtering. The Ar^+ ion energy was varied from 0.5 to 4.0 keV. The normal to the film surfaces was kept at a tilt angle of 30° with respect to the direction of the incident electron beam. The sputter yield coefficients (S) of the In films were determined as 4.5, 6.4, 10.6, 11.5 and 10.7 atoms/ion for the Ar^+ energies 0.5, 1.0, 2.0, 3.0 and 4.0 keV respectively.

Level (Hons, MSc, PhD, other)?

Msc

Consider for a student award (Yes / No)?

Yes

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

Yes

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