Contribution ID: **306** Type: **Oral Presentation**

Carbon structures generated by carbon ion implantation into FeCr thin films

Friday, 15 July 2011 12:00 (15 minutes)

<p>We present results on the synthesis of precise and thickness controlled carbon structures using ion implantation into thin films of a typical metal catalyst, for Schottky contacts and spintronic applications. Thin films of FeCr on a silicon substrate was prepared using magnetron sputtering and then implanted with carbon ions at controlled thicknesses close to the surface at elevated temperatures (600C) in an attempt to catalyse the formation of carbon nanotubes. The energy and the dose of the carbon ions to be deposited close to the surface was determined from SRIM simulations. The nature and quality of the carbon nanotubes was probed using Raman, electrical and magnetic measurements.

Level (Hons, MSc,
   PhD, other)?

other

Consider for a student
   award (Yes / No)?

no

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

yes

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