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Sputter deposition and characterization of diamond like carbon thin films

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**Abstract content (Max 300 words)
Formatting &
Special chars**

Deposition of diamond like carbon (DLC) thin films were prepared by a DC magnetron sputtering on glass and silicon substrates. The characterisation techniques used are: Scanning electron microscopy (SEM) for imaging and chemical composition on the surface of the thin film. Atomic force microscopy (AFM) for studying the surface roughness of thin and thick films in coatings and Raman spectroscopy basically characterized type of carbon presence in the samples and also to check the DLC spectrum with presence of D and G peaks where G correspond to graphite while D correspond to diamond. Raman spectroscopy shows the D peak which is approximately 1360 cm⁻¹ and the G peak is approximately 1550 cm⁻¹. Ratio is important factor in determining whether the DLC is more diamond like or graphitic.

**Apply to be
 considered for a student
 award (Yes / No)?**

YES

**Level for award
 (Hons, MSc,
 PhD)?**

MSc

**Main supervisor (name and email)
and his / her institution**

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

YES

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