

# SAIP2014



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## **Investigation of the effect of iodine bombardment in glassy carbon.**

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### **Abstract :**

The diffusion behavior of iodine and the structural changes in glassy carbon due to iodine ion bombardment was investigated using Rutherford Backscattering spectroscopy and Raman spectroscopy respectively. The glassy carbon sample was implanted with iodine ions at 200 keV to a fluence of  $2 \times 10^{16}$  ions/cm<sup>2</sup>. This implantation was done at room temperature. Migration of iodine towards the surface of the glassy carbon was observed when the sample was heat treated in vacuum at 200 °C. The diffusion became further enhanced at increasing temperature. Loss of iodine was also recorded. The Raman spectra showed the sample became damaged after iodine ion implantation. Recovery of the glassy carbon sample was noticed with increasing annealing temperatures.

### **Award :**

yes

### **Level :**

PhD

### **Supervisor :**

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### **Paper :**

no

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**Type :** Poster Presentation