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Type: **Oral Presentation**

## Brillouin scattering study of ion-implanted chemical vapour deposited diamond

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### Abstract content <br> &nbsp; (Max 300 words)

One of the most attractive applications of diamond is a surface acoustic wave (SAW) device, since diamond has the highest sound velocity among all materials. Among the variety of applications of diamond, the SAW filter is the first commercial product as an electronic device. This requirement in many applications is likely to grow as more micro-sized devices are required. A study of the stiffness of ion- irradiated diamond has been carried out using the non-destructive Brillouin scattering technique. The longitudinal and transverse velocities of pure CVD diamond were found to be 17992 ms<sup>-1</sup> and 12486 ms<sup>-1</sup> respectively. The stiffness of ion irradiated diamond and metal interface is studied, changes on the clean CVD diamond due to these processes are also reported.

### Apply to be<br> consider for a student <br> &nbsp; award (Yes / No)?

Yes

### Level for award<br>&nbsp;(Hons, MSc, <br> &nbsp; PhD)?

PhD

### Main supervisor (name and email)<br>and his / her institution

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

Yes

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**Session Classification:** DCMPM2

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