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Surface Brillouin scattering studies on annealed ion-modified CVD diamond

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Abstract content
   (Max 300 words)
Formatting &
Special chars

Surface Brillouin scattering studies show a transition from a hard diamond-like damaged material to a softer material after annealing at 500 degrees Celsius and 800 degrees Celsius depending on the local damage density. CVD diamonds were implanted with carbon ions in single and multiple energy regimes to a maximum energy of 150 keV and doses of 1.5 x 1016 and 1.0 x 1016 ions/cm squared, respectively. Surface Brillouin scattering studies were then carried out to study the transformation of the damaged near surface region due to heat treatment at different annealing temperatures. Surface acoustic modes are used to study the evolution. Raman studies was also used to show the structural changes occurring due to the annealing effects on the sample surface.

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

Yes

Level for award
 (Hons, MSc,
   PhD)?

PhD

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

Mervin Naidoo

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

No

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