

Processing Diamonds for Synchrotron Related Applications

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This contribution discusses the practical steps in the processing procedures which are necessary for synchrotron related applications, especially monochromators. The potential problem areas in processing are identified. New processing techniques will be discussed in a very practical way. Mechanical processing including sawing and polishing require special development of jigs and fixtures as well as unique systems for processing equipment. Particular procedures are followed to obtain the best results in surface finish and parallelism in the sub hundred micron thickness region. There will be additional discussion on developing alternative non-mechanical methods in minimising the near subsurface damage to the diamond.

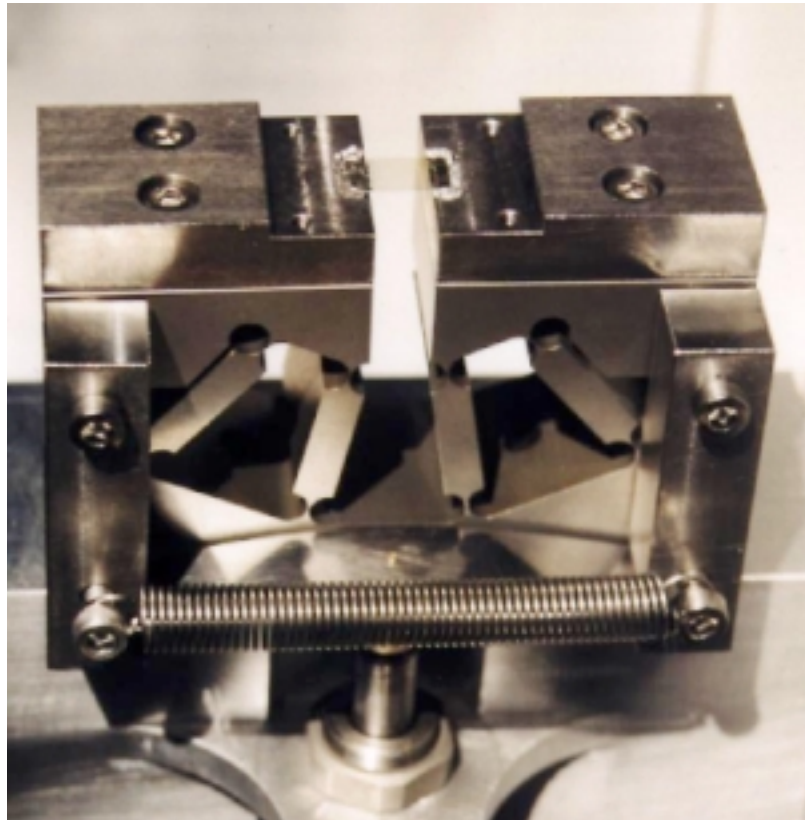


Figure 1
Diamond prepared for synchrotron applications