



Sequential Multi Beam Laser Processing of Materials

Along with other extreme properties that make diamond attractive for various advanced uses, diamond is the hardest material known. This property also makes diamond the most difficult material to form and shape. In the case of diamond substrates grown from the Chemical Vapor Deposition (CVD) process, removing the sharp peaks and valleys of the natural polycrystalline surface can require weeks of grinding with conventional methods. With the use of dual laser processing however, a one cm sq. diamond substrate can be processed in less than a minute. Considering that the process requires no grit, no chemicals or equipment other than the lasers, this is the cleanest, fastest, and cheapest method of planarizing a diamond substrate that is yet known.

The technology is covered under Patent 6,168,744 and is available for licensing.

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