



Polishing and Planarizing Polycrystalline Diamonds

Diamond is the hardest material known and therefore shaping diamond is very slow. Laser methods of planarizing diamond are known to be quite efficient. However, the cost of the laser equipment needed to process diamond (as shown by U of AR patent 6,168,744) is about \$200,000. For those who need a faster way to process diamond substrates without the expense of laser equipment, the method and apparatus described in this patent will be useful. The process uses no diamond polishing powder and can produce a polished surface with a surface roughness of less than .05 microns, with less than 8% variation in planarization and free of contamination. Process time is relatively low, at 8 hours.

The technology is covered under Patent 5,725,413 and is available for licensing.

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