

Technology turns carbon to diamonds at room temperature



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Spotted: A research team at [North Carolina State University](#) has discovered a way to [create diamonds at room temperature](#). Man-made diamonds aren't new but this development is significant because it means diamond fibres – the seeds of diamonds, if you will – can be created with a laser, according to the team.

Lead by [Dr. Jagdish Narayan](#), the researchers found that if a small cylinder-shaped piece of carbon (known as a carbon nanotube) is paired with an underlying substance like glass, the heat from the laser will melt the carbon but not vaporise it. The melted material is quickly cooled, creating diamond "fibres". These can be used for things like quantum computing; and the process can be used to create "diamond-seeded carbon", to make larger diamonds for the deep drilling industry – or for jewellery.

The university has filed for a patent for the technology.

Takeaway: Up until now, diamonds, man-made or the natural kind, traditionally required subjecting carbon to intense pressure at high temperatures — an expensive and time consuming process. The new method uses a laser (turned on for just one billionth of a second). It makes producing diamonds easier, faster and cheaper. This development has significant implications for science and the jewellery industry. Synthetic stones are already disrupting the [\\$14 billion-natural diamond market](#), according to a 2016 report by Morgan Stanley, and this discovery could further fuel that trend.

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