

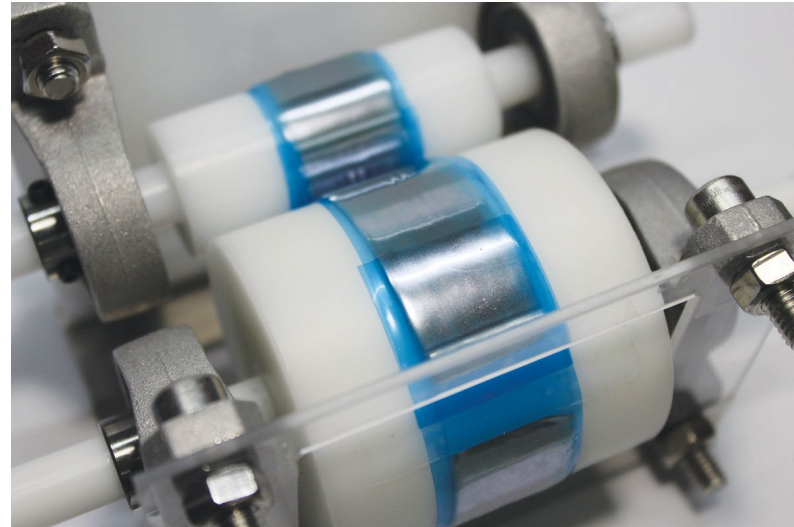


High speed graphene fabrication uses rollers

Slide by Neil Goalby. Available from rsc.li/3OpFDum

A new technology uses sticky tape to get graphene flakes cheaply and rapidly. It produces nanosheets of graphene with excellent electrical and optical properties. The graphene produced could be used in flexible devices and cost-effective sensors.

The method uses sticky tape wrapped around two spinning rollers that rub against each other when turned. Graphite flakes are added to the rollers. At the end of the process, the tape is completely covered in graphene. The process could be automated and integrated into industrial assembly lines.



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The graphene has been successfully used in transistors and photodetectors

Questions

1. Describe the structure of graphene.
2. Suggest why graphene is transparent.
3. Explain why graphene has high electrical conductivity.