

Exploring 2D Empty Space

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It is now possible to create angstrom-scale channels that can be viewed as if one or a few individual atomic planes are pulled out of a bulk crystal leaving behind a 2D space. I shall overview the work done in Manchester on this subject over the last several years, which covers studies of various properties of gases, liquids and ions under such an extreme confinement (for review, see [1]).

References

[1] A. K. Geim. *Nano Lett* 21 (2021) 6678

Figures

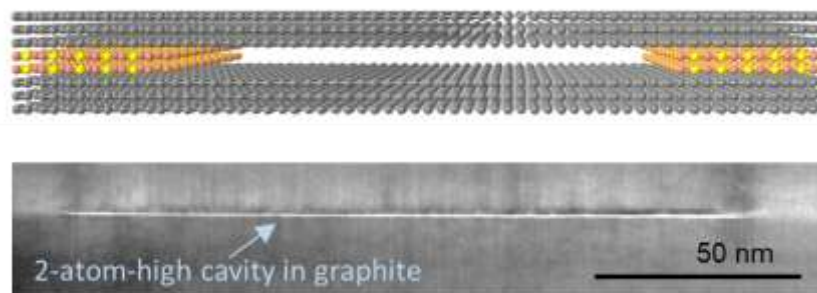


Figure 1: (Top) Artist's impression: Angstrom-scale cavities with atomically flat walls can be made from different materials and have different heights. (Bottom) Transmission electron micrograph of a 2D cavity in graphite with a nominal height of 6.7 Å. It is made by placing strips of bilayer graphene between two atomically-flat graphite crystals.