MACHIDA LAB.

[Science of Atomic Layer Materials]

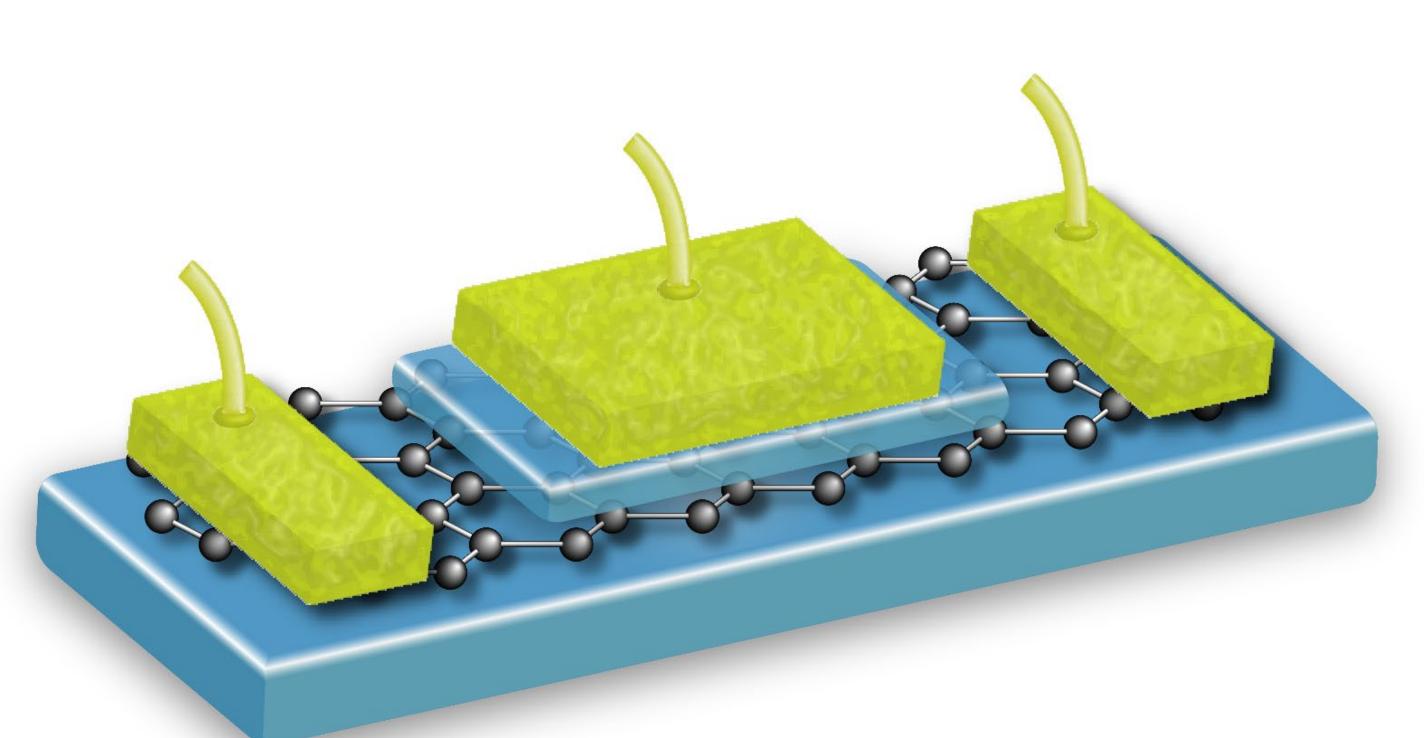


Department of Fundamental Engineering

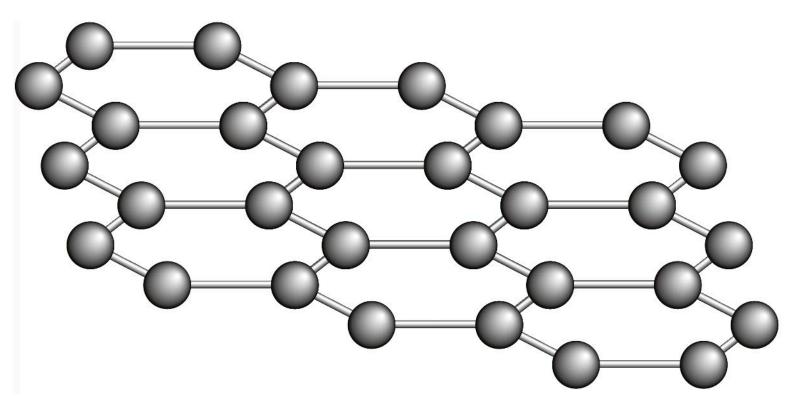
Quantum Transport in Low-dimensional Systems

Department of Materials Engineering

http://qhe.iis.u-tokyo.ac.jp

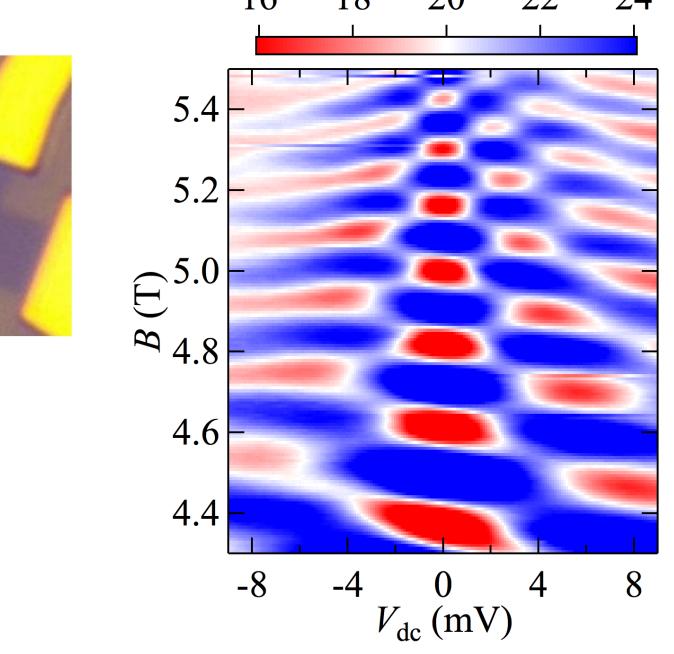


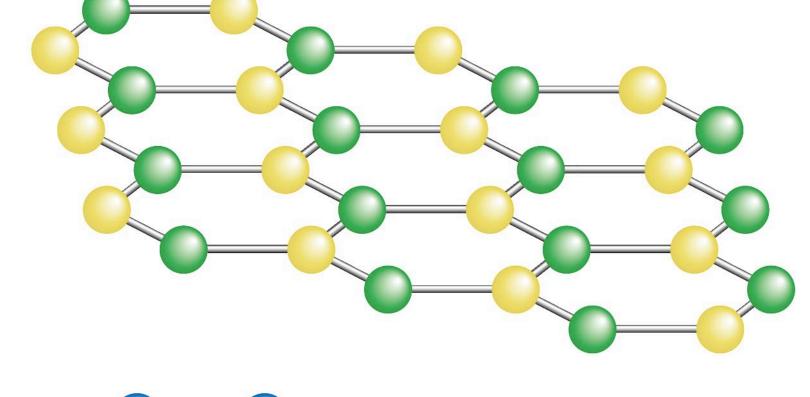
The graphene and other one atomic layer thick crystals reveal unusual quantum physics. By combining material science, nano-fabrication, and low temperature (10 mK) measurement, we explore the science and the engineering of graphene and two-dimensional crystals.



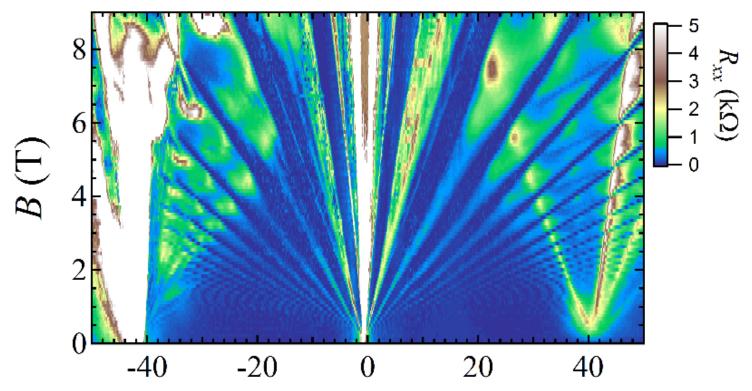
Graphene

One atomic layer thick Dirac material

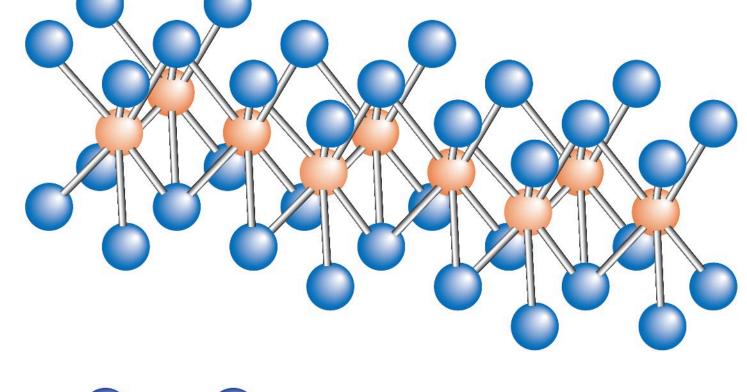




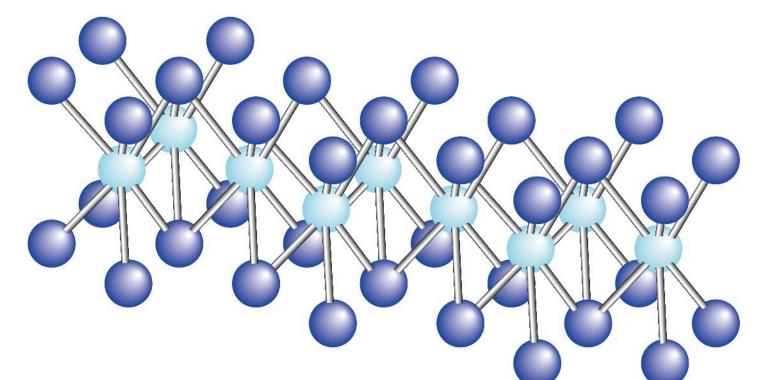
h-BN 2D insulator



 $V_{BG}(V)$



MoS₂
Monolayer semiconductor



NbSe₂
Superconductivity in one monolayer

