

MACHIDA LAB.

Material properties of van der Waals junctions of 2D materials

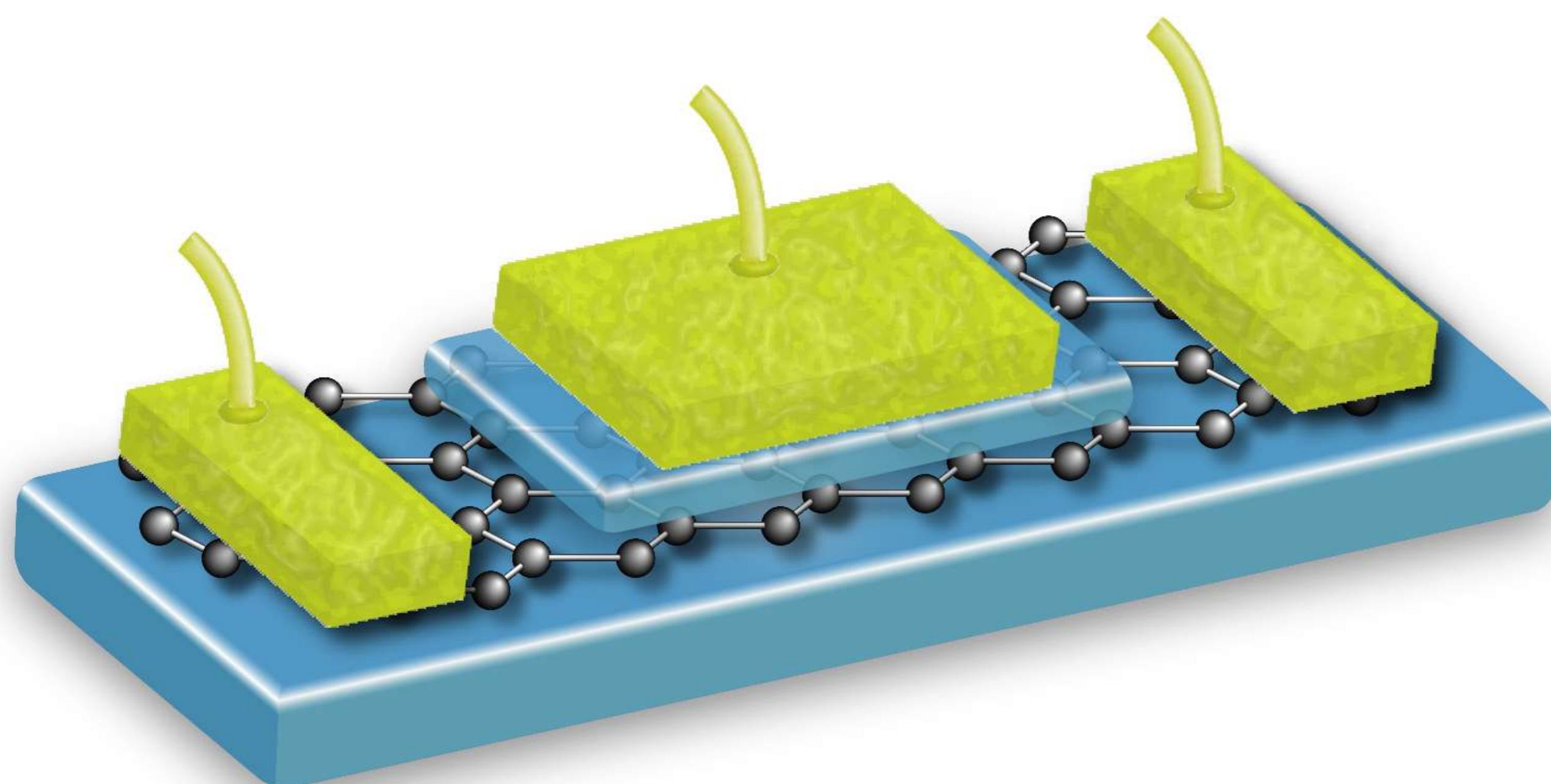


Department of Fundamental Engineering

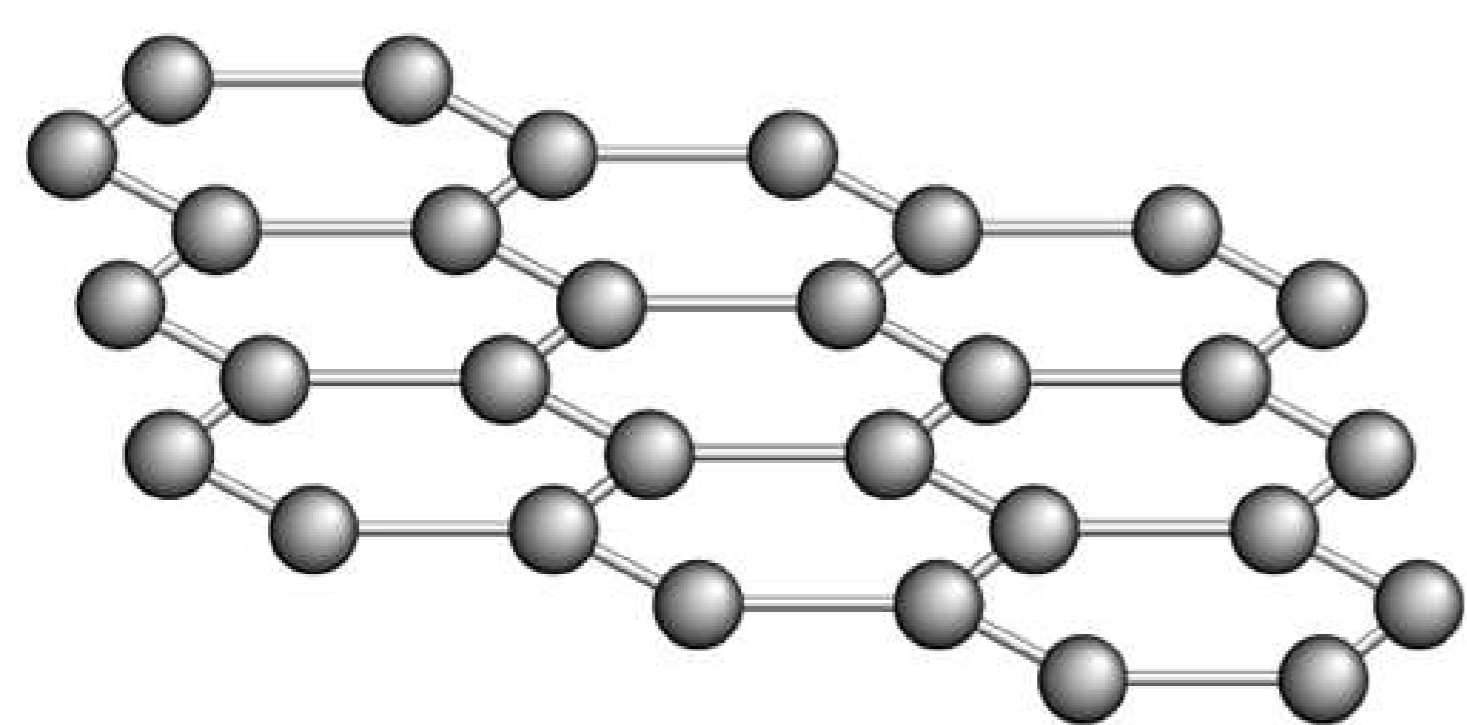
Quantum transport in low-dimensional systems

Department of Materials Engineering, Graduate School of Engineering

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

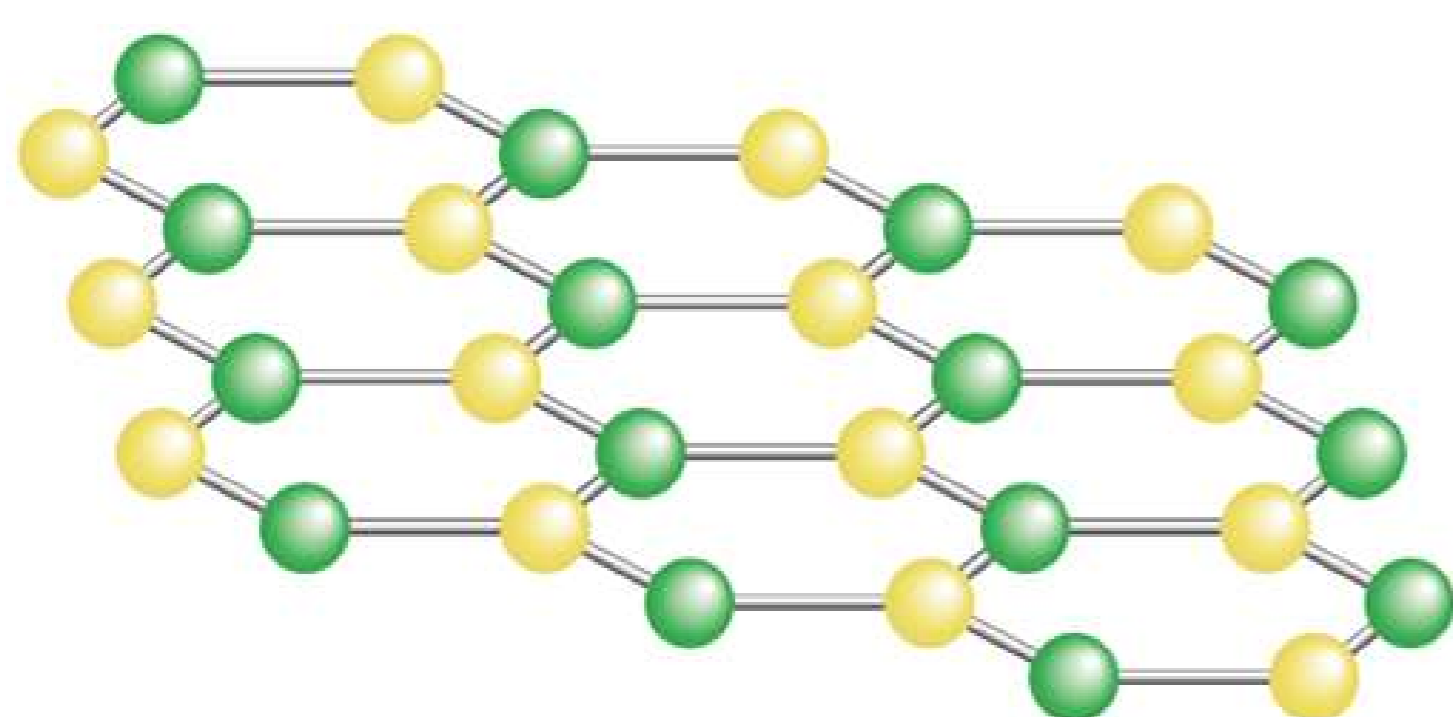


The graphene and other one atomic layer thick crystals reveal unusual quantum physics. By combining material science, nano-fabrication, and low temperature (10 mK) measurement, we explore the science and the engineering of graphene and two-dimensional crystals.



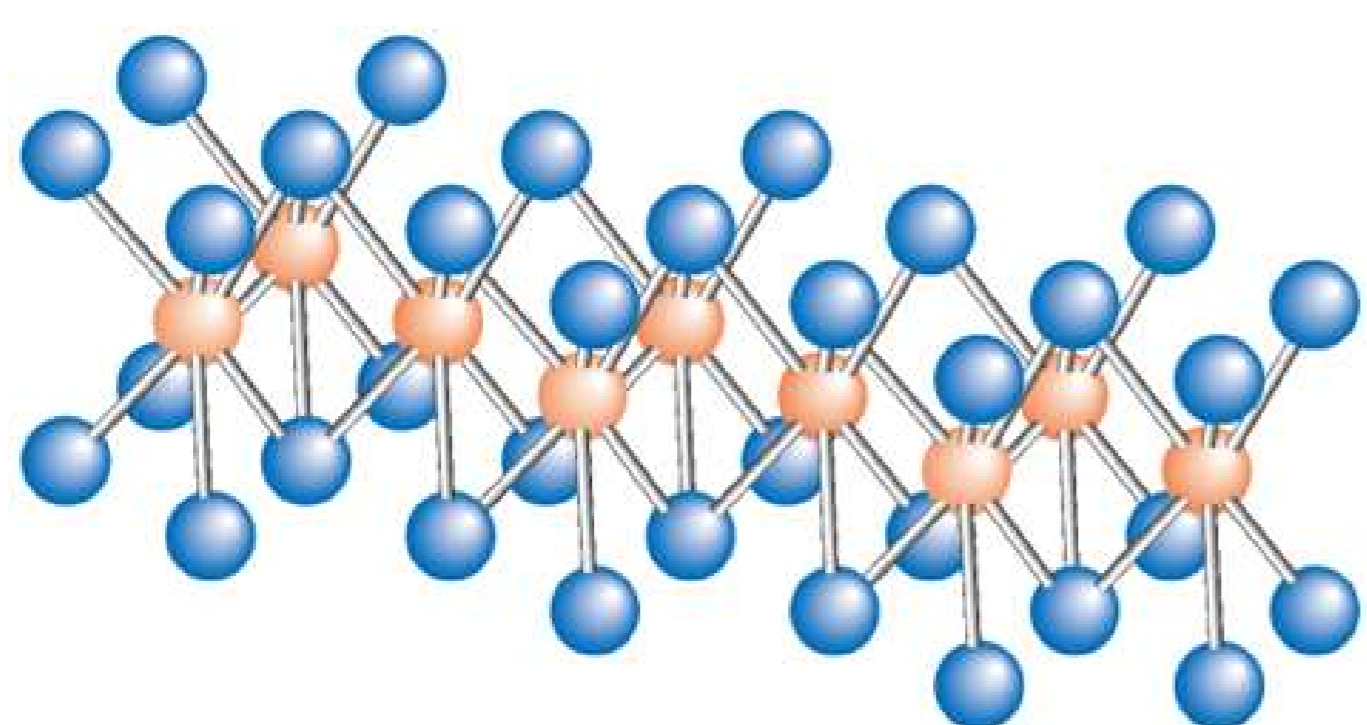
Graphene

One atomic layer thick Dirac material



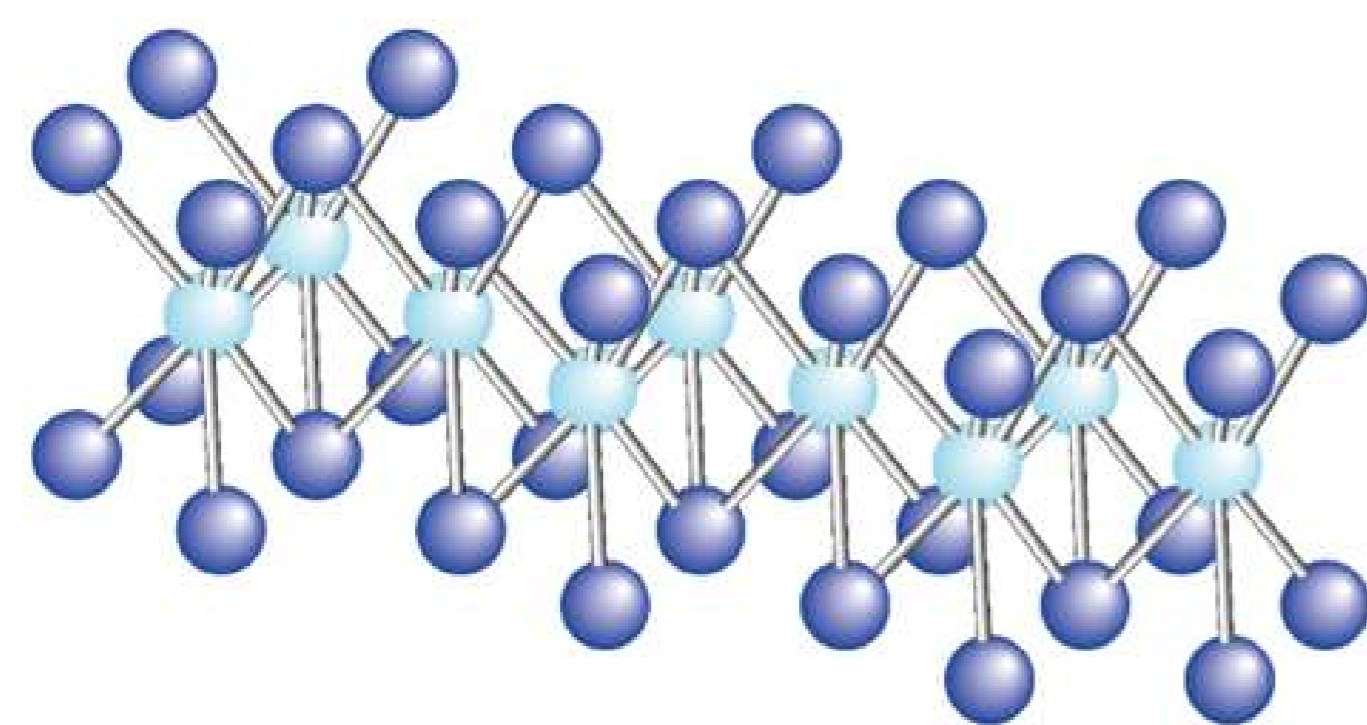
h-BN

2D insulator



MoS₂

Monolayer semiconductor



NbSe₂

Superconductivity in one monolayer

