

物理学教室

物性コロキウム

日時：2016年2月16日（火）10:00-11:00

場所：理学研究科合同B棟745号室（745, Science complex B）

講師：Lin Zhou (Massachusetts Institute of Technology, United States)

題目：Large-Area Synthesis of High-Quality Uniform Few-Layer MoTe₂

概要：

The controlled synthesis of highly crystalline large-area MoTe₂ atomic layers is a challenge for the practical applications of this emerging material. Here we develop a novel approach for the growth of large-area, uniform and highly crystalline few-layer MoTe₂ film via chemical vapour deposition (CVD). Large-area atomically thin MoTe₂ film has been successfully synthesized by tellurization of a MoO₃ film. The as-grown MoTe₂ film is uniform, stoichiometric, and highly crystalline. As a result of the high crystallinity, the electronic properties of MoTe₂ film are comparable with that of mechanically exfoliated MoTe₂ flakes. Since the MoTe₂ film is highly homogenous, and the size of the film is only limited by the substrate and CVD system size, our growth method paves the way for large-scale application of MoTe₂ in high performance nanoelectronics and optoelectronics.

連絡先：齋藤 理一郎（795-7754）

☆ 9:45 よりコーヒー、紅茶、お菓子を用意します。カップを持ってお集まり下さい。

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