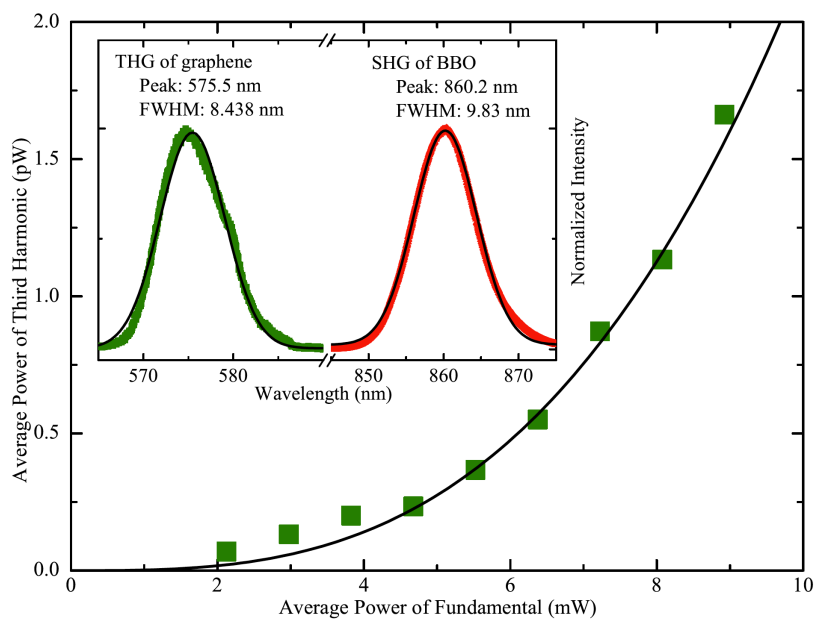
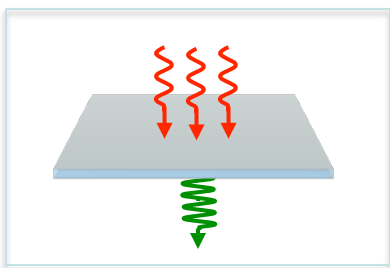


ACS PRF# 50266-DNI10: Hot carrier transport in graphene

Hui Zhao, University of Kansas

Third Harmonic Generation in Graphene

In graphene, three photons combine to one



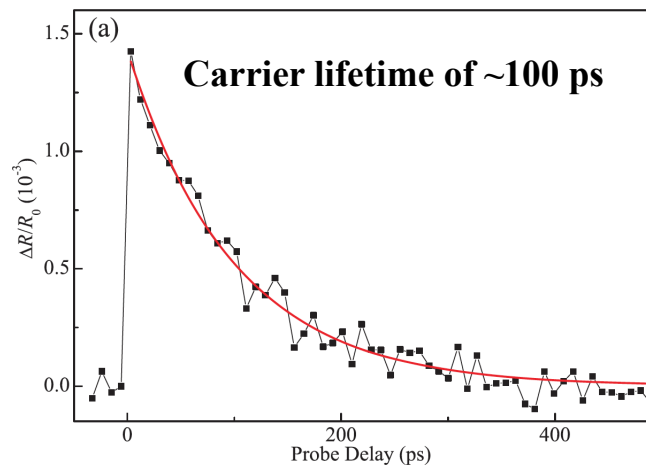
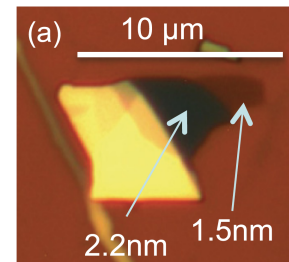
Third order nonlinear susceptibility $\sim 10^{-17} \text{ m}^2/\text{V}^2$

Carrier Dynamics in MoS₂ Films

Thin films of MoS₂

One or a few atomic layers

Potential applications in electronics, photonics



Carrier diffusion coefficient
 $\sim 20 \text{ cm}^2/\text{s}$

