

Tunable Optical Properties in Doped Graphene
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Graphene, a single layer of carbon atoms, exhibits novel two-dimensional electronic behavior. In particular, its physical and chemical properties can be strongly modified by electrical doping. Optical spectroscopy provides a powerful tool in study these phenomena in graphene. In this talk, I will show how we can use infrared spectroscopy to probe doping-dependent interband transitions as well as intraband transitions. I will also discuss how one can control inelastic light scattering processes in graphene by varying carrier concentration.