

FACULTY MENTOR Cubukcu, Ertugrul

PROJECT TITLE Monolayer Photonics

PROJECT DESCRIPTION

Optoelectronic devices such as photodetectors and lasers form the backbone of data communication systems. Direct electronic bandgap in conventional bulk semiconductors enable such technologies. Recently, a new class of direct bandgap materials with a thickness of only molecular layer has emerged. We will explore the potential of these emerging two-dimensional monolayer materials, aka van der Waals semiconductors for nanophotonic device applications.

INTERNS NEEDED 1 MS Student OR 1 Undergrad Student

PREREQUISITES

Candidates are expected to have a basic understanding of classical electrodynamics and semiconductor physics.

