

Internal Seminar

Spin-hall effect of light for precise measurement of optical properties of atomic layers

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Atomic layers like mono- and few layer- transition metal dichalcogenides are currently being studied extensively for their potential to play a significant role in the future nanoelectronics, optoelectronics, energy storage and harvesting applications. The charge transport, heat transport and photons in these materials are strongly confined in the 2D plane, leading to remarkable changes in their electronic and optical properties. Hence, there is a growing need for a simple and high precision tool to characterise the optical, magnetic and dielectric properties of such materials.

In this work, we use the spin-Hall effect of light (SHEL) as a simple, high resolution, precise and non-invasive tool to characterise the optical and dielectric properties of atomic layers including monolayer and bilayer Molybdenum disulphide layers.

Thursday, Aug 24th 2023

02:30 PM

Seminar Hall

