

PHYSIKALISCHES KOLLOQUIUM

Mittwoch, 16.01.2013, um 17:15 Uhr

Ort: Reichenhainer Str. 90; Neues Hörsaalgebäude, Raum: 2/N013



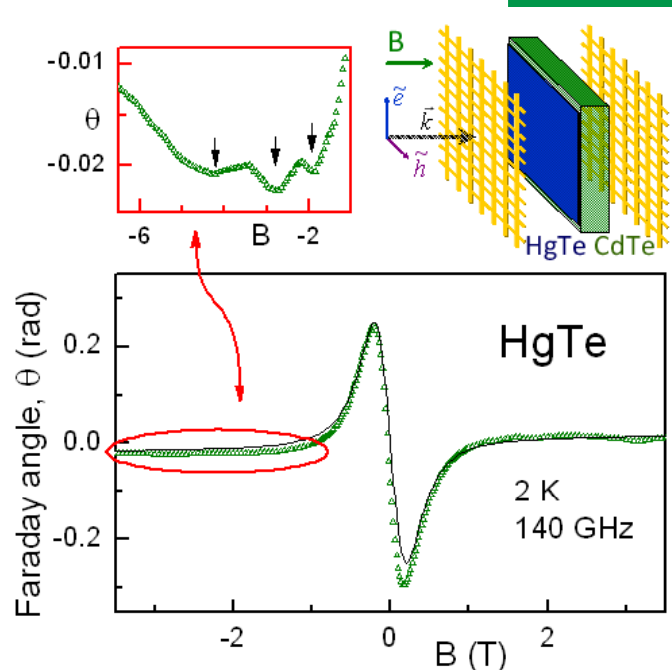
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Magneto-optics at terahertz frequencies: dynamic Hall effect and polarization control

Modern magneto-optics at terahertz frequencies ranges from classical magnetoelectric coupling to high-frequency extensions of the Hall effect. The latter is especially important in investigations the electro-dynamics of metallic and semiconducting materials. In some special cases the charge dynamics in external magnetic fields lead to such unusual results like giant Faraday effect or electric control of the polarization rotation.

As a concluding example, the magneto-optics of topological insulators will be discussed, i.e. insulating materials with topologically protected conducting surface. Along with a half integer quantum Hall effect the universal values of the Faraday and Kerr rotation are predicted for topological insulators.



Alle Zuhörer sind ab 17:00 Uhr zum Kaffee vor dem Hörsaal eingeladen.