Polarization conversion in MoS₂ flakes

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We have studied experimentally a series of samples of layered MoS_2 flakes with thicknesses varying from 1 to $10\,\mu$ m and observed their strong in-plane optical anisotropy, which we attribute to the effects of strain in combination with fluctuations in the direction of the C-axis. This optical anisotropy allows us to convert the polarization of transmitted light from linear to circular with the degree up to 15%.

Keywords: polarization, transition metal dichalcogenides, multilayer flakes.

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