

Abstract Submitted  
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**Magneto-optical studies of MoS<sub>2</sub>**<sup>1</sup> MUMTAZ MURAT ARIK, ALOK MUKHERJEE, PAYAM TAHERI, HUI XING, HAO ZENG, JOHN CERNE, State Univ of NY - Buffalo — We report infrared and visible (0.100 – 2.75 eV) magneto-optical measurements on high quality monolayer MoS<sub>2</sub> prepared by sulfurizing MoO<sub>3</sub> films. Reflection, photoluminescence, and magneto-optical Kerr spectra of MoS<sub>2</sub> on different substrates are measured at magnetic fields up to 7 T and temperatures down to 10 K. In the visible reflection spectrum we observe the A1 and B1 excitonic transitions. While the A1 strength is independent of magnetic field, the B1 amplitude increases by a factor of 1.5 at 5 T. This work is supported by NSF-DMR1006078.

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