

Abstract Submitted
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Electrical Transport Properties of Liquid Phase Exfoliated MoS₂ Thin Films¹ SUJOY GHOSH, ANDREW WINCHESTER, Southern Illinois University, Carbondale, IL, ANA ELIAS, Penn State University, University Park, PA, NIHAR PRADHAN, LUIS BALICAS, National High Magnetic Field Lab, Tallahassee, FL, MAURICIO TERRONES, Penn State University, University Park, PA, SAIKAT TALAPATRA, Southern Illinois University, Carbondale, IL — In this presentation we will report the electrical transport properties of thin films consisting of liquid phase exfoliated MoS₂ flakes. The D.C electrical transport properties will be discussed in the light of 2D VRH model. Our preliminary investigations on the A.C transport properties on these materials indicate similar found in disordered semiconductors. These results will be discussed based different existing charge transport mechanisms under the application of an A.C field.

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