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A review of electrophoretic deposition of molybdenum disulfide $(MoS_2)^1$ CHRISTOPHER CONNELL, THEDA DANIELS-RACE, Louisiana State University — Electrophoretic Deposition (EPD) is a cost effective room temperature technique applicable to a wide range of deposition materials used in the formation of near atomically flat films on several substrate types. This review will present some of the basics of EPD along with a selection of recent methods being investigated to realize this technique as a technologically feasible and commercially competitive method for large scale reproducible deposition. The current trend among a significant segment of EPD researchers is to focus on the deposition of carbon nanotubes. However, there has been a notable interest in the use of EPD for other materials such as transition metal dichalcogenides (TMDCs). For this poster we will focus on the deposition of the TMDC molybdenum disulfide (MoS₂) due to its ability to form thin films with a tunable bandgap dependent on the thickness of the film.

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