Abstract Submitted for the MAR15 Meeting of The American Physical Society

Charge Transport of MoS₂ Supported by Thiol-Decorated Self-Assembled Monolayer DORON NAVEH, VLADA ARTEL, MOSHE KIRSH-NER, Dept. of Electrical Engineering, Bar-Ilan University, Ramat-Gan, Israel 52900 — Intrinsic charge transport in MoS₂ supported by thiols was recently reported [1] and was attributed to passivation of sulfur vacancies and suppression of charged impurities from the dielectric substrate. In this talk we will present the transport characteristics of single layer and few-layer MoS₂ on thiol-decorated self-assembled alkyl-siloxane monolayer.

[1] Z. Yu et al., Towards intrinsic charge transport in monolayer ?molybdenum disulfide by defect and interface engineering Nature Commun. 5(2014).

Doron Naveh Dept. of Electrical Engineering, Bar-Ilan University, Ramat-Gan, Israel 52900

Date submitted: 15 Nov 2014 Electronic form version 1.4