Abstract Submitted for the MAR14 Meeting of The American Physical Society

Transport Properties and Devices of Molybdenum Disulfide FENGLIN WANG, PETR STEPANOV, JEANIE LAU, University of California Riverside, UNIVERSITY OF CALIFORNIA RIVERSIDE, LAU GROUP TEAM — Molybdenum Disulfide (MoS2) is a very promising material especially the monolayer MoS2 with a direct bandgap; however, the low mobility is the major obstacle currently. We have combined multiple methods to improve the mobility, also investigate into the possible mechanism of the mobility bottleneck. With the help of additional gates, we are able to achieve ambipolar transport in MoS2 devices.We will present the latest experimental results.

> Fenglin Wang University of California Riverside

Date submitted: 15 Nov 2013

Electronic form version 1.4