## Abstract Submitted for the MAR15 Meeting of The American Physical Society

Fluorinating Single Layer Molydisulfide<sup>1</sup> MASAHIRO ISHIGAMI,

JYOTI KATOCH, Department of Physics and Nanoscience Technology Center, University of Central Florida — We have investigated the structural and electronic properties of fluorinated (via plasma processing) molydisulfide using scanning tunneling microscopy, x-ray photoelectron spectroscopy, photoluminescence and ultraviolet photoelectron spectroscopy. Fluorine atoms are strongly bound on molydisulfide and the binding leads to p-doping. As such, fluorination can be useful for chemical doping of molydisulfide. We will discuss our experimental results in light of our recent ab-initio calculations.

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