Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Cleavage behavior and surface states in iron pnictides KLAUS KOEPERNIK, ALEXANDER LANKAU, HELMUT ESCHRIG, JEROEN VAN DEN BRINK, SERGEY BORISENKO, IFW Dresden, Germany, ERIK VAN HEUMEN, MARK S. GOLDEN, Zeeman institute, University of Amsterdam, Netherlands — We present a density functional study of the surface electronic structure and the cleavage behavior of LiFeAs and Co-doped $BaFe_2As_2$. The results are discussed together with angle resolved photo emission (ARPES) and low energy electron diffraction (LEED) data. The two systems behave rather differently and we conclude that LiFeAs will be the ideal system for surface sensitive probes among the iron pnictide familly.

Klaus Koepernik
IFW Dresden, Germany

Date submitted: 19 Nov 2010 Electronic form version 1.4