Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Sorting Category: 09.1.1 (C)

Scanning tunneling spectroscopy in Co-doped $BaFe_2As_2$: what density functional theory can tell us

KLAUS KOEPERNIK, STEVEN JOHNSTON, JEROEN VAN DEN BRINK, IFW Dresden, ERIK VAN HEUMEN, MARK S. GOLDEN, Zeeman Institute, University of Amsterdam, Netherlands — We use density functional theory to simulate the scanning tunneling spectra and topographic images of Co-doped $BaFe_2As_2$. The matrix element effects are evaluated and the specific contributions of the different surface atoms to the spectra are considered. The results give a better understanding of the measured spectra and assess the resolution of STS measurements in these systems.

[X] Prefer Oral Session
[ ] Prefer Poster Session

Klaus Koepernik
k.koepernik@ifw-dresden.de
IFW Dresden

Date submitted: 28 Jan 2012 Electronic form version 1.4