

Abstract Submitted
for the OSS09 Meeting of
The American Physical Society

The effect of the electron scattering phase shifts upon the computational outcomes of the Low-Energy Electron Diffraction technique
SONYA ADAS, LISA MEYERS, MELLITA CARAGIU, Ohio Northern University
— In a typical Low-Energy Electron Diffraction (LEED) investigation of a crystal surface, the electrons probing the surface are scattered by the atoms in the sample. The scattering process introduces phase shifts in the waves associated to the incoming electrons. An investigation of how these phase shifts influence the results of a LEED calculation are presented for the fairly complicated Cu(511) stepped surface. The phase shifts have been calculated using the Barbieri/Van Hove Phase Shift Package. The phase shifts considered correspond to copper atoms arranged in various planes of the copper crystal: (100), (111), and a close approximation of the (511) plane.

Mellita Caragiu
Ohio Northern University

Date submitted: 27 Mar 2009

Electronic form version 1.4