

**Session: Step Motion on the Cu(100)-( $\sqrt{2}\times\sqrt{2}$ )R45°-O Surface  
SS4**

**Abstract #  
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**Author(s)**

C.L.H. Devlin; Air Force Research Lab  
J.P. Landry; University of California, Davis  
N.C. Bartelt; Sandia National Laboratories  
S. Chiang; University of California, Davis

**Presenter**

**Correspond**

**X**

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**Abstract:**

Low energy electron microscopy (LEEM) was used to study the motion of single-atom-high steps on a Cu(100) surface covered with the ( $\sqrt{2}\times\sqrt{2}$ )R45°-O structure. Curved steps exhibited capillary wave motion, which was analyzed using Langevin Dynamics.<sup>1</sup> From this analysis, the dominant mode of adatom diffusion (i.e., along steps or over terraces) was deduced. Parameters such as the step stiffness and kink activation energy were also discovered.

<sup>1</sup> N.C. Bartelt and R.M. Tromp, Phys Rev B 54 (1996) 11731.

**Note: Requested an Oral Session.**