Abstract Submitted
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Scanning tunneling spectroscopy of mass selected Ag clusters on C_{60} functionalized surfaces[1] HEINZ HÖVEL, STEFANIE DUFFE, LUKAS PATRYARCHA, Technische Universitaet Dortmund, Experimentelle Physik I, Germany, CHUNRONG YIN, BERND VON ISSENDORFF, Universitaet Freiburg, Fakultaet fuer Physik, Germany, MICHAEL MOSELER, Fraunhofer-Institut fuer Werkstoffmechanik IWM, Freiburg, Germany — Scanning tunneling spectroscopy (STS), which can be used to study the electronic properties of individual clusters on surfaces [1] is combined with the deposition of mass selected Ag clusters (from Ag^+_{55} to $Ag^+_{561\pm5}$). A functionalization of the substrate with C_{60} layers proved to be very useful to ensure the soft landing of the clusters and to bind them to fixed positions on the surface [2]. The knowledge of the exact cluster size shows that one has to interpret the STM derived cluster height carefully, considering details of the STM imaging process. For the soft landed clusters we measured identical spectral features for individual clusters with the same selected size using STS at 5 K.
[1] H. Hövel, I. Barke, Prog. Surf. Sci. 81 (2006) 53.
[2] S. Duffe et al., Eur. Phys. J. D (2007), published online.

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