

Curriculum Vitae

Leo Groß

Born on June 6th 1973 in Berlin

Chronology

October 2001 - present	Ph. D. student at the Freie Universität Berlin, in the group of Prof. K.-H. Rieder
March 2001 - August 2001	Ph. D. student at the Westfälische Wilhelms-Universität Münster, in the group of Prof. H. Fuchs
October 1997 - February 2001	Master's (Diplom) student at the WWU Münster. Diploma thesis: <i>Selbstordnung der Monolagen von Perylen und DMe-PTCDI auf Au(110).</i> In the group of Prof. H. Fuchs
August 1996 - August 1997	Graduate student at the Tulane University in New Orleans, USA
April 1994 - July 1996	Undergraduate student at the FU Berlin (Vordiplom)
January 1993 - March 1994	Alternative civilian service (Zivildienst) in a day-care centre for handicapped persons in Berlin
June 1992	Abitur at the Arndt Gymnasium in Berlin

Publications

Articles

1. M. Li, W. Hebenstreit, **L. Gross**, U. Diebold, M A. Henderson, D. R. Jennison, P. A. Schultz, M. P. Sears, *Oxygen-induced restructuring of the $TiO_2(110)$ surface: a comprehensive study*. Surf. Sci. **437** (1999) 173-190.
2. C. Seidel, R. Ellerbrake, **L. Gross**, and H. Fuchs, *Structural transition of perylene and coronene on silver and gold surfaces: A molecular-beam epitaxy LEED study*, Phys. Rev. B **64** (2001) 195418.
3. **L. Gross**, C. Seidel, and H. Fuchs, *Organic Monolayers with Uniform Domain Orientation and Reduced Antiphase Boundaries – MBE of Perylene on Au(110)*, Organic Electronics **3** (2001) 1-7.
4. **L. Gross**, F. Moresco, M. Alemani, H. Tang, A. Gourdon, C. Joachim, and K.-H. Rieder, *Lander on Cu(211) - Selective Adsorption and Surface Restructuring by a Molecular Wire*, Chem. Phys. Lett. **371** (2003) 750-756.
5. F. Moresco, **L. Gross**, M. Alemani, K.-H. Rieder, H. Tang, A. Gourdon, and C. Joachim, *Probing the Different Stages in Contacting a Single Molecular Wire*, Phys. Rev. Lett. **91** (2003), 036601.
6. **L. Gross**, F. Moresco, L. Savio, A. Gourdon, C. Joachim, and K.-H. Rieder, *Scattering of Surface State Electrons at Large Organic Molecules*, Phys. Rev. Lett. **93** (2004), 056103.
7. M. Alemani, **L. Gross**, F. Moresco, K.-H. Rieder, C. Wang, X. Bouju, A. Gourdon, C. Joachim, and K.-H. Rieder, *Recording the intramolecular deformation of a 4-legs molecule during its STM manipulation on a Cu(211) surface*, Chem. Phys. Lett. (2004), in print.

8. L. Gross, F. Moresco, P. Ruffieux, A. Gourdon, C. Joachim, and K.-H. Rieder, *Tailoring molecular self-organisation by chemical synthesis – HBC, HPB, and derivatives on Cu(111)*, accepted for publication in Phys. Rev. B (2005).
9. L. Savio, F. Moresco, L. Gross, A. Gourdon, C. Joachim, and K.-H. Rieder, *Conformations and controlled manipulation of a long molecular wire on Cu(111)*, submitted to Surf. Sci. (2004).

Talks

1. *Untersuchungen von Ordnungs- und Umordnungsprozessen ultradiinner Schichten DMe-PTCDI auf Au(110)-Oberflächen mittels STM und LEED.* L. Gross, C. Seidel, A. Schäfer und H. Fuchs, Vortrag O 22.8, Frühjahrstagungen der DPG in Regensburg (2000).
2. *Highly ordered organic monolayers with reduced antiphase domain walls due to growth from two-dimensional gas- and fluid phases,* L. Gross, C. Seidel, H. Fuchs, Talk SS+BI-TuM10, AVS conference in San Francisco (2001).
3. *Measuring the intramolecular motion of large molecules,* F. Moresco, L. Gross, M. Alemani, G. Meyer, K.-H. Rieder, H. Tang, C. Joachim, nano7/ecoss21 in Malmö (2002).
4. *Lander Moleküle auf Cu(211),* L. Gross, F. Moresco, M. Alemani und K.-H. Rieder, Vortrag O 21.8, DPG in Dresden (2003).
5. *Scattering surface state electrons at Lander molecules,* L. Gross, F. Moresco, M. Alemani, L. Savio, K.-H. Rieder, H. Tang, C. Joachim, and A. Gourdon, AMMIST + CHIC meeting in Paris (2003).

6. *Probing molecular-metal contacts with surface standing waves*, L. Gross, F. Moresco, M. Alemani, A. Gourdon, and K.-H. Rieder, Talk, 13th NID workshop in Athens (2004).
7. *Hexaphenylbenzene derivatives on Cu(111)*, L. Gross, F. Moresco, K.-H. Rieder, P. Ruffieux, C. Joachim, and A. Gourdon, AMMIST meeting in Zürich (2004).

Posters

1. *Temperature induced Adsorbate-Substrate Structuring on the System DMe-PTCDI on Au(110); a VT-STM Study*. L. Gross, C. Seidel, H. Fuchs, Poster P04.06, SXM4 in Münster (2000).
2. *Probing molecular-metal contacts by scattering of surface state electrons*, L. Gross, F. Moresco, M. Alemani, A. Gourdon, C. Joachim, and K.-H. Rieder, LTC 5 in Berlin (2004)

Acknowledgments

I would like to express my sincere gratitude to:

Professor Dr. K.-H. Rieder for his supervision, support and the possibility to work in his group,

Professor Dr. M. Wolf for his willingness to co-referee,

Dr. Francesca Moresco, for imparting her knowledge about STM and surface science, her motivation and encouragement, and for her help during the whole time of the thesis, especially during the preparation of this manuscript,

Micol Alemani and Dr. Leonhard Grill for the very good and pleasing teamwork in the lab and the nice breaks in between,

Dr. Katharina Franke, Dr. Jascha Repp, Dr. Andreas Riemann, Christian Roth, Ingeborg Staß, Dr. Wolfgang Theis, and all other members of the group for discussions and a good atmosphere.

Angelika Scheffler for her great help in bureaucratic affairs,

Dr. Pascal Ruffieux and Dr. Letizia Savio for their collaboration during their measurements in Berlin,

Professor Dr. A. Gourdon for providing the molecules,

and Professor Dr. C. Joachim for many discussions and proof reading of this manuscript.