

## CURRICULUM VITAE

### Personal Data

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### Education

10/87 – 06/92 **University of Wrocław**, Faculty of Mathematics, Physics and Chemistry: study of physics. M.Sc. in physics, dissertation: "Properties of YBaCuO superconductors".  
11/96 **University of Wrocław**: PhD thesis: "Properties of Ag on different Cu surfaces".  
09/06 **University of Wrocław**: Habilitation thesis: "Investigation of equilibrium crystal shapes with the use of STM".  
09/16 **University of Wrocław**: Professor in physics.

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### Employment and research visits

IX/92 - present **Institute of Experimental Physics, University of Wrocław**, Poland, assistant professor (IX/92-I/93), research associate (II/93-I/97), associate professor (II/97-IX/09), leader of Electron Spectroscopy Group (X/07-present), university professor (X/09-present), vice director (IX/12-present), leader of Solid-Liquid Interfaces Group (I/13-present).  
X/95 – XII/95 **Institute of Physics, University of Zürich**, Switzerland, scholarship.  
X/98 – III/02 **Forschungszentrum Jülich GmbH**, Germany, Alexander von Humboldt Fellowship (X/98-VI/00). PostDoc (VII/00-III/02).  
IV/02 – IX/02 **Fritz-Haber Institut (FHI) der Max-Planck-Gesellschaft (MPG)**, Berlin, PostDoc,  
VIII/04 **FHI-MPG**, research stay.  
VIII/06 - IX/06 **FHI-MPG**, research stay.  
VIII/08 - IX/08 **FHI-MPG**, Alexander von Humboldt Fellowship.

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### Teaching

Mechanics, electricity and magnetism, introduction to physics, physics for informatics, solid state physics, experimental physics, I physics laboratory, II physics laboratory.  
Tutor of I physics laboratory.

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### Supervisor

3 diploma engineering theses, 9 master thesis, 6 PhD thesis.

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### Editorial work

Guest Editor of the Professor Stefan Mróz Symposium Proceedings, *Acta Physica Polonica A Vol. 114* (2008).  
Guest Co-Editor of the International Workshop on Surface Physics Proceedings, *Applied Surface Science Vol. 254* (2008).

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### Conference organisation

Secretary of International Workshop on Surface Physics (IWSP'2011), Łądek Zdrój 2011, Poland.  
Chairman of Professor Stefan Mróz Symposium, Wrocław 2008, Poland.  
Chairman of International Workshop on Surface Physics (IWSP'2007), Polanica Zdrój 2007, Poland.

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### Invited lectures

24 invited talks at international conferences and research institutes.

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## Awards

Prizes of the Rector of the University of Wrocław for scientific and organizational achievements – 1996, 2003, 2004, 2006, 2007, 2008, 2011, 2013.  
Gold cross of merit - 2016.

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## Research activities

Physics and chemistry of solid state surfaces in vacuum and electrolytes. Growth and structure of heteroepitaxial metal films. Oxide films on metal crystal surfaces. Atomic structure of solid-liquid interfaces. Self-assembled molecular layers at metal/electrolyte interfaces. Experimental methods: AES, LEED, PES, XPD, DE PES, DAES, SPM, EC-STM, CV. Theoretical methods: Multiple scattering (MS) cluster calculations.

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## Selected publications

- [1] S. Mróz and M. Nowicki, *Directional Auger electron spectroscopy and directional elastic peak electron spectroscopy in the investigation of the crystalline structure of the surface layers: the Ag/Cu(111) interface*, Surface Science **297** (1993) 66-70.
- [2] A. Stuck, M. Nowicki, S. Mróz, D. Naumovic, and J. Osterwalder, *High energy electron diffraction on Cu(111) measured with low-energy Auger electrons: theory and experiment*, Surface Science **306** (1994) 21-28.
- [3] M. Nowicki, A. Emundts, G. Pirug, and H.P. Bonzel, *CO adsorption on Pt(110) investigated by x-ray photoelectron diffraction*, Surface Science, **478** (2001) 180-192.
- [4] H.P. Bonzel and M. Nowicki, *Absolute surface free energies of perfect low-index orientations of metals and semiconductors*, Physical Review B **70** (2004) 245430-1÷9.
- [5] M. Sterrer, M. Heyde, M. Nowicki, N. Nilius, T. Risse, H.P. Rust, G. Pacchioni, H.J. Freund, *Identification of color centers on MgO(001) thin films with Scanning Tunneling Microscopy*, Journal of Physical Chemistry B **110** (2006) 46-49.
- [6] I. Morawski, M. Nowicki, *Multiple scattering events of primary electrons in directional elastic peak electron spectroscopy*, Physical Review B **75** (2007) 155412.
- [7] V. Simic-Milosevic, M. Heyde, N. Nilius, M. Nowicki, H.P. Rust, H.J. Freund, *Substrate mediated interaction and electron induced diffusion of single lithium atoms on Ag(001)*, Physical Review B **75** (2007) 195416.
- [8] M. Jurchyszyn, A. Mischuk, I. Morawski, M. Nowicki, *Structural Investigations by Means of Directional Elastic Peak Electron Spectroscopy*. In: Reedijk, J. (Ed.) Elsevier Reference Module in Chemistry, Molecular Sciences and Chemical Engineering. Waltham, MA: Elsevier. 18-Dec-2015, doi:10.1016/B978-0-12-409547-2.11459-3.
- [9] B. Madry, K. Wandelt, M. Nowicki, *Deposition of copper multilayers on Au(111) in sulfuric acid solution: an electrochemical scanning tunneling microscopy study*, Surface Science **637-638** (2015) 77.
- [10] B. Madry, K. Wandelt, M. Nowicki, *Sulfate structures on copper deposits on Au(111): in situ STM investigations*, Electrochimica Acta **217** (2016) 249.
- [11] B. Madry, K. Wandelt, M. Nowicki, *Deposition of copper and sulfate on Au(111): New insites*, Applied Surface Science **388** (2016) 678.