

# CONTRIBUTIONS

## Invited Lectures

STM-based Spectroscopies of Single Dopants and Quantum Noise

*H. Zheng, A. Burtzloff, M. Gruyters, A. Weismann, J. Kröger, E. Pehlke, M. Brandbyge, R. Berndt*

STS characterisation of atomic scale logic gates at surfaces of passivated semiconductors

*M. Szymoński*

The AFM as a tool to measure surface forces

*H.-J. Butt*

Charge/Spin Transport at Surfaces

*S. Hasegawa*

Self-assembling of one-dimensional structures driven by confined diffusion on vicinal Si(111) surfaces

*M. Jalochowski*

Inelastic and spin-resolved scanning tunneling spectroscopy on arrays of coupled magnetic adatoms

*J. Wiebe*

## Contributed Talks

Probing correlated quantum states of coupled donors in silicon

*J. Bocquel, B. Voisin, J. Salfi, R. Rahman, G. Klimeck, M.Y. Simmons, L.C.L. Hollenberg, S. Rogge*

Light induced charge dynamics at the GaAs(110) surface investigated with a Scanning Tunneling Microscope

*P. Kloth, K. Kaiser, O. Bunjes, T. Thias, M. Wenderoth*

Tailoring magnetic coupling between organic-metal hybrids mediated by a nanoskymion lattice

*M. Bazarzik, J. Brede, N. Atodiresei, V. Caciuc, A. Al-Zubi, S. Blügel, R. Wiesendanger*

Stiffness and internal friction of single protein molecules: AFM study

*R. Szoszkiewicz, N. Ploscariu, W. Swięszkowski*

Dynamic Force Spectroscopy characterization of the single specific protein-ligand interactions

*M. Weiss, K. Herman, L. Majchrzycki, M. Lekka, A. Ptak*

New Perspectives in Scanning Tunneling Potentiometry

*P. Willke, T. Druga, T. Kotzott, R.G. Ulbrich, M.A. Schneider, M. Wenderoth*

Turn your PC into AFM puller driver

*K. Pawlak, J. Strzelecki*

Effective spring constant of  $\alpha$ -helix in function of stretching velocity

*J. Dąbrowski, A. Ptak*

Atomistic Insights into Phosphorus  $\delta$ -Doping of Germanium

*W.M. Klesse, L. McKenzie-Sell, O. Warschkow, G. Capellini, M.Y. Simmons, G. Scappucci*

Comparative study of thermal evolution of Co and Ni germanide nanostructures on Ge(001)

*T. Grzela, G. Capellini, M.A. Schubert, W. Koczorowski, R. Czajka, N.J. Curson, T. Schmidt, J. Falta, T. Schroeder*

The implementation of adaptive, extended DMT model for NanoSwing AFM imaging mode

*A. Sikora, L. Bednarz*

Vertical and lateral confinement of electrons due to near-surface voids in Pb

*M. Müller, N. Néel, S. Crampin, J. Kröger*

Graphene oxide thermal reduction process analysis by means of AFM

*Ł. Majchrzycki, M. Nowicki, W. Koczorowski, R. Czajka*

Ba adsorption phases on Ge(001) – an STM study

*W. Koczorowski, T. Grzela, N.J. Curson, S.R. Schofield, M.W. Radny, R. Czajka*

STM/STS study of the interaction of cobalt with ultrathin iron oxide films on Ru(0001)

*M. Lewandowski, R. Ranecki, N. Michalak, Z. Miłosz, S. Jurga*

Electronic structure and surface termination of bismuth-based topological insulators

*M. Hermanowicz, M.W. Radny*

On-surface preparation of self-terminating molecular chains

*E. Sierda, M. Bazarnik, B. Bugenhagen, M.H. Prosenc, W. Koczorowski, R. Wiesendanger*

The study of mechanical properties of materials using nanoindentation technique

*M. Nowicki*

A capacitive probe for ESR detection

*G. Aloisi, M. Carlà, D. Dolci, M. Mannini, A. Caneschi*

Monomolecular organic films for electronic applications

*E. Piosik, J. Makowiecki, O. Rusinek, T. Martynski*

## Posters

**P1.** Topography and mechanical properties of electrospun PHBV fibers – a nanoscale approach

*A. Chlanda, K. Zalewska-Wierzbička, J. Rębiś, M.J. Woźniak, W. Święszkowski, K.J. Kurzydłowski*

**P2.** Characterization in nanoscale self-assembled monolayers deposited on titanium and Ti-6Al-4V alloy surfaces by using uncoated and coated tips

*M. Cichomski, I. Piwoński, A. Kisielewska, M. Kaczmarek, W. Pawlak, W. Kozłowski, A. Ptak*

**P3.** STM studies on pentacene chains on Si(553)-Pb surface

*M. Dachniewicz, P. Nita, P. Dyniec, R. Otero, M. Jałochowski*

**P4.** Electron Scattering in Strongly Doped Graphene

*D. Dombrowski, W. Jolie, S. Runte, M. Petrović, F. Craes, J. Klinkhammer, M. Kralj, P. Lazić, E. Sela, C. Busse*

**P5.** Surface characterization of CVD diamond films by AFM imaging

*A. Dychalska, J. Makowiecki, K. Paprocki, K. Fabisiak, M. Szybowicz*

**P6.** Finite element optimization of the EMR sensor in planar configuration

*S. El-Ahmar, A.A. Poźniak*

**P7.** Development of a Soft-Landing for Electrospray Deposition

*M. Elsebach, M. Bazarnik, B. Bugenhagen, A. Frank, M.H. Prosenč, R. Wiesendanger*

**P8.** Nucleation and Growth of Copper PhthalocyanineAggregates Deposited from Solution on Planar Surfaces

*H. Gojzewski, F. Ghani, H. Riegler*

**P9.** Quantitative characterization of the concanavalin A-carboxypeptidase Y specific interactions

*K. Herman, M. Weiss, L. Majchrzycki, M. Lekka, A. Ptak*

**P10.** Growth and characterisation of V/Fe(110) superlattices

*A. Marczyńska, J. Skoryna, S. Pacanowski, M. Wachowiak, B. Szymański, Ł. Majchrzycki, W. Koczorowski, R. Czajka, L. Smardz*

**P11.** Studies of nickel germanides growth on Ge(001) by means of STM

*J.Z. Milosz, T. Grzela, W. Koczorowski, T. Schroeder, R. Czajka*

**P12.** Atomic Force Spectroscopy as a tool for scaffolds evaluation

*P. Oberbek, A. Kosik, M.J. Woźniak, W. Święszkowski*

**P13.** Correlation between growth and electronic and magnetic properties in Ti-Co layered structures

*S. Pacanowski, A. Marczyńska, J. Skoryna, A. Rybacki, W. Koczorowski, R. Czajka, L. Smardz*

**P14.** Biomechanical properties of mouse atrial cardiomyocytes as a tissue model for cardiac diseases therapy

*L. Puzzi, V. Martinelli, M. Weiss, L. Mestroni, O. Sbaizero*

**P15.** Influence of the deposition temperature on magnetostatic coupling NiFe/Au/Co/Au multilayers

*R. Ranecki, M. Kamiński, M. Szybowicz, M. Błaszyk, T. Luciński, B. Susła*

**P16.** Local conductivity of single-crystalline Bi<sub>2</sub>Te<sub>3</sub> films grown on mica

*R. Rapacz, K. Balin, M. Wojtyniak, J. Szade*

**P17.** Preparation and characterisation of LaNi<sub>4</sub>M (M=Co, Al) alloy thin films

*A. Rogowska, J. Skoryna, A. Marczyńska, S. Pacanowski, Ł. Majchrzycki, W. Koczorowski, R. Czajka, L. Smardz*

**P18.** Growth and characterisation of naturally oxidised Fe(110) surface

*A. Rybacki, A. Marczyńska, J. Skoryna, S. Pacanowski, W. Koczorowski, R. Czajka, L. Smardz*

**P19.** Application of force spectroscopy to monitor UV-induced changes in keratinocytes

*A. Sobiepanek, M. Milner-Krawczyk, T. Kobiela*

**P20.** The structure, textural properties and chemical composition of silica *ink-bottle* nanoporous matrices from point of view of transmission and field emission scanning electron microscopy

*A. Sterczyńska, M. Sliwińska-Bartkowiak*

**P21.** Colloidal Probe Force Spectroscopy studies of polyelectrolyte layers interactions

*M. Strawski, B. Czerwieniec, L. Granicka, M. Szklarczyk*

**P22.** DFT studies of spin polarized surface states at Pb/Ge(111)1×1 systems

*M. Szary, B. Pieczyrak, L. Jurczyszyn, M.W. Radny*

**P23.** Interlayer exchange coupling in Fe/V/Fe trilayers

*M. Wachowiak, J. Skoryna, A. Marczyńska, S. Pacanowski, A. Rogowska, Ł. Majchrzycki, W. Koczorowski, R. Czajka, L. Smardz*