

# Curriculum Vitae of Marko Kralj

## PERSONAL INFORMATION

Name and surname **Marko Kralj**  
Academic title Dr.sc.  
Year and institution of PhD obtained 2003.  
University of Zagreb  
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Citizenship Croatian

## WORK EXPERIENCE

Date (from – until) 06/2017 –  
Institution *Institute of Physics, Zagreb*  
Position Director  
Work field *Strategic and operative development of the Institute of Physics.*

Date (from – until) 06/2013 – 05/2017  
Institution *Institute of Physics, Zagreb*  
Position Assistant Director  
Work field *Managing technical services, HRS action plan, web and information. Strategic projects.*

Date (from – until) 12/2016 –  
Institution *Institute of Physics, Zagreb*  
Position Senior scientist  
Work field *Experimental surface physics / graphene and 2D materials beyond graphene*

Date (from – until) 12/2009 – 12/2016  
Institution *Institute of Physics, Zagreb*  
Position Senior research associate  
Work field *Experimental surface physics / graphene and 2D materials beyond graphene*

Date (from – until) 10/2006 – 12/2009  
Institution *Institute of Physics, Zagreb*  
Position Research associate  
Work field *Experimental surface physics / nanoscience*

Date (from – until) 05/2003 – 09/2006  
Institution *Institute of Physics, Zagreb*  
Position Higher assistant / Scientific novice  
Work field *Experimental surface physics / nanoscience*

Date (from – until) 09/2003 – 07/2006  
Institution *Universität Bonn; Institut für Physikalische und Theoretische Chemie, Bonn*  
Position PostDoc (Humboldt Fellow and Wissenschaftlichen Mitarbeiter)  
Work field *Physics and Chemistry at Surfaces*

Date (from – until) 05/2001 – 04/2003  
Institution *Institute of Physics, Zagreb*  
Position Higher Assistant / Scientific novice  
Work field *Experimental surface physics / 2D metallic films*

Date (from – until) 09/1997 – 04/2001  
Institution *Institute of Physics, Zagreb*  
Position Assistant / Scientific novice

## EDUCATION

Date 04/2003  
 Place Zagreb  
 Institution University of Zagreb, Faculty of Science  
 Qualification awarded Dr.sc.

Date 04/2001  
 Place Zagreb  
 Institution University of Zagreb, Faculty of Science  
 Qualification awarded Mr.sc.

Date 03/1997  
 Place Zagreb  
 Institution University of Zagreb, Faculty of Science  
 Qualification awarded Dipl.ing.

## TRAINING / GUEST AT OTHER INSTITUTIONS

Year 2015–, multiple visits  
 Place Beijing  
 Institution Institute of Chemistry, Chinese Academy of Sciences  
 Subject and skills covered Synthesis of 2D materials

Year 2012, one month  
 Place Kyoto  
 Institution Kyoto University  
 Subject and skills covered Surface optical characterization methods

Year 2011, three months  
 Place Erlangen  
 Institution Universität Erlangen-Nürnberg  
 Subject and skills covered Two-photon photoemission method

Year 2010–, multiple visits  
 Place New York  
 Institution Columbia University  
 Subject and skills covered Two-photon photoemission and non-linear optical imaging

Year 2010–, multiple visits  
 Place Köln  
 Institution Universität zu Köln  
 Subject and skills covered Low-temperature scanning tunneling microscopy

## LANGUAGES

**MOTHER TONGUE** **Croatian**  
 Language **English**  
 Speaking Fluent  
 Writing Fluent  
 Reading Fluent

## OTHER FOREIGN LANGUAGES

Language **German**  
 Speaking Fluent  
 Writing Moderate  
 Reading Fluent

## AWARDS AND RECOGNITIONS

- 2017, **Award of the Croatian Academy of Sciences for Highest Scientific and Artistic Accomplishments in the Republic of Croatia** for year 2016
- 2014, **Croatian state award for science** for year 2013.
- 2005–2006, **Humboldt Research Fellowship**
- 1994–1995, **Student scholar** of the Institute of Physics

*Principal investigator on 6 running projects,*

- 03/2017–02/2021, **Optical Properties of Transition Metal Dichalcogenide Heterostructures** (HrZZ funding, 130.000 EUR)
- 11/2014–11/2019 (possibly till 11/2024), **Center of Excellence for Advanced Materials and Sensing Devices**, CEMS; <http://cems.irb.hr/>; PI for the research unit Science of Graphene and related 2D Structures (MZOS + EU structural funds)
- 01/2016–12/2017, **Intercalation of epitaxial dichalcogenides** (MZOS-DAAD funding, bilateral partner Dr. Carsten Busse-Universität Münster, 17.000 EUR)
- 04/2016–12/2017, **Tuning many-body interactions in graphene by cesium intercalation** (MZOS-Serbia funding, bilateral partner Dr. Marko Spasenović-Institute of Physics Belgrade, 3.000 EUR for Croatian side)
- 09/2015–09/2017, **Large-scale synthesis and characterization of novel 2D materials** (MZOS-China funding, bilateral partner Prof. Bin Wu-Institute of Chemistry CAS, 10.000 EUR for Croatian side)
- 06/2016–05/2017, **Nanopore Array: Ion-beam patterned nanopore arrays in polymer supported 2D materials** (HAMAG-BICRO funding, 45.000 EUR)

*Team member on 3 running projects,*

- 12/2015–12/2017 (PI: Predrag Lazić), **Van der Waals heterostructures: fundamentals and applications** (UKF + MZOS funding, 215.000 EUR)
- 04/2016–12/2017 (PI: Nataša Vujičić), **Growth and characterization of functional 2D materials based on graphene and dichalcogenides** (MZOS-Slovenia funding, 2.000 EUR for Croatian side)
- 06/2016–05/2017 (PI: Tomislav Vuletić), **QuartzNano: Quartz microbalance sensors improved on the nanolevel** (HAMAG-BICRO funding, 45.000 EUR)

*Principal investigator on 7 finished projects,*

- 2014–2015, **2D materials with novel properties** (MZOS-DAAD funding, bilateral partner Dr. Carsten Busse-Universität zu Köln, 17.000 EUR)
- 2012–2013, **Electrons in two dimensions: Graphene and topological insulators** (MZOS-DAAD funding, bilateral partner Dr. Carsten Busse-Universität zu Köln, 17.000 EUR)
- 06/2010–06/2012, **Photolithographic synthesis and electronic properties of graphene based devices and related structures**, no. UKF 66/10, (UKF + MZOS funding, 130.000 EUR)
- 06/2009–06/2012, **Epitaxial-graphene-enabled tunable metamaterials** (MZOS-NSF funding, bilateral partner Prof. Richard Osgood-Columbia University, 16.000 EUR for Croatian side)
- 2010–2011, **Graphene-cluster hybrids** (MZOS-DAAD funding, bilateral partner Dr. Carsten Busse-Universität zu Köln, 17.000 EUR)
- 2007, **Implementation of an ambient STM laboratory for studying the interaction of biologically important molecules with surfaces**, AvH Return Fellowship (AvH funding, 5.000 EUR)
- 01/2005–07/2006, **VTSTM study of metal clusters nucleation and their interaction with adsorbed molecules**, PostDoc program Alexander von Humboldt Foundation (AvH funding, 35.000 EUR/year)

*Team member on 12 finished projects,*

- 10/2013–10/2015 (PI: Tomislav Vuletić), **Confined DNA** (UKF funding 200.000 EUR)
- 2006–2009 (PI: Petar Pervan), produžavano u više navrata do kraja 2013, **Elektronska i kristalna struktura poduprtih samoorganiziranih nano-sistema**, MZOS # 035-0352828-2840 (MZOS funding 32.000 EUR/year)
- 2006–2007 (PI: Petar Pervan), **Electronic properties of manganese nanostructures at surfaces** (MZOS-DAAD funding, 16.000 EUR)
- 2002–2011 (PI: Klaus Wandelt/Conrad Becker), **Template – Functional chemical matrices**, SFB 624 (DFG funding)
- 2002–2005 (PI: Klaus Wandelt/Philippe Sautet), **Molecular scale reactivity at bimetallic surfaces** (DFG-CNRS funding, 510.000 EUR)
- 2002–2006 (PI: Milorad Milun), **Elektronska struktura nano-strukturiranih materijala na površinama**, MZOS # 0035016 (MZOS funding 16.500 EUR/year)
- 1996–2002 (PI: Branko Gumhalter), **Fizika površina i adsorbiranih slojeva**, MZOS # 00350108 (MZOS funding, 19.000 EUR/year)
- 1999–2001 (PI: Milorad Milun), **Surface states and quantum well states and their role in nanostructures** (MZOS-ALIS funding, 7.000 EUR/year)
- 1998–2001 (PI: Petar Pervan), **Nanostructures and new materials** (MZOS-SLO funding, 4.000 EUR/year)
- 1998–2001 (PI: Milorad Milun), **Preparation and characterization of nanostructures** (MZOS-DAAD funding, 11.000 EUR)
- 1998–2001 (PI: Milorad Milun), **Restructuring of surfaces** (MZOS-SLO funding, 4.000 EUR/year)
- 1995–1997 (PI: Petar Pervan), **Electronic structure of magnetic materials, ultrathin films and surfaces** (MZOS-ALIS funding, 7.000 EUR/year)

## LEADERSHIP AND ORGANIZATIONAL SKILLS AND COMPETENCES

Marko Kralj is a senior scientist and director at *Institute of Physics, Zagreb* (IFZ), and the leader of a research unit *Graphene and related 2D structures* (with 12 permanent scientists and more than 10 PhD students and postdocs) in the scope of *Center of Excellence for Advanced Materials and Sensing Devices, CEMS*. He has a strong background in the physics of surfaces and nanosystems where he developed expertise in the application of angle-resolved photoemission (ARPES) and scanning tunneling microscopy (STM) techniques. Since 2009 he works extensively on the investigations of epitaxial graphene, starting with the PRL paper ("highly cited paper" according to WoS) which brought graphene research in Croatia to top internationally competitive level. Dr. Kralj is a winner of prestigious Humboldt fellowship and Croatian State Award for Science for year 2013. He is actively involved in strategic structural projects of IFZ, in particular as a team member for IFZ's *Center for Advanced Laser Techniques*. He is also very active in mentorship (2 completed PhD thesis, 8 master thesis, and 3 PhD students working on their theses). M. Kralj was active part of organization of conferences, notably in 2009 for the Croatian Physical Society meeting (member of the Organizing committee) and more recently *The European Workshop on Epitaxial Graphene and 2D Materials (EWEG/2D'2014)*, where he was the president of the Local organizing committee.

## TEACHING

2015–, "Experimental methods in biophysics / Scanning probe microscopy", for graduates in Biophysics, Physics Department, University of Zagreb

2015–, "Nanotechnology", for graduates in Chemistry, Chemistry Department, University of Zagreb

2007–, occasionally participating with expert lectures and lab demos along with several undergraduate courses at University of Zagreb (e.g. "Overview of modern experimental research" or "Experimental methods of modern physics")

2003–2006, Teaching assistant "Physical Chemistry" lab course for undergraduates, Chem. Dept., University of Bonn

## MENTORSHIP OF FINISHED PHD AND MASTER THESES AND SUPPORTING DEVELOPMENT OF INDEPENDENT CAREERS

- Radatović, B. Sklopovi bazirani na slojevitim 2D materijalima i njihovim heterostrukturama / završni rad - diplomski/integralni studij. Zagreb : Prirodoslovno-matematički fakultet, 30.09. 2016, 56 str. Voditelj: Kralj, Marko.
- Krajnović, D. In situ karakterizacija rasta slojevitih materijala na ravnim podlogama / završni rad - diplomski/integralni studij. Zagreb: Prirodoslovno-matematički fakultet, 8.3.2015, 85 str. Voditelj: Kralj, Marko.
- Pielić, B. Dvodimenzionalni materijali nakon grafena / završni rad - diplomski/integralni studij. Zagreb: Prirodoslovno-matematički fakultet, 29.5.2015, 85 str. Voditelj: Kralj, Marko.
- Šrut Rakić, I. Manipulation of Dirac electrons through the nanoscale modulation of epitaxial graphene / doktorska disertacija. Zagreb: Prirodoslovno-matematički fakultet, 7.5.2015, 147 str. Voditelj: Kralj, Marko.
- Petrović, M. Synthesis and intercalation of epitaxial graphene on iridium / doktorska disertacija. Zagreb: Prirodoslovno-matematički fakultet, 10.10.2014, 143 str. Voditelj: Kralj, Marko.
- Jurdana, M. Grafen: od sinteze do transfera i elektroničkog sklopa / završni rad - diplomski/integralni studij. Zagreb: Prirodoslovno-matematički fakultet, 14.3.2014, 77 str. Voditelj: Kralj, Marko.
- Krajnović, I. Zakrivljeni grafen ; Modulacija elektronskih svojstava / završni rad - diplomski/integralni studij. Zagreb: Prirodoslovno-matematički fakultet, 21.9.2012, 59 str. Voditelj: Kralj, Marko.
- Vojnić Kortmiš, M. Međudjelovanje grafena sa metalnom površinom: utjecaj na svojstva Diracovih fermiona / diplomski rad. Zagreb: Prirodoslovno-matematički fakultet, 7.2.2011., 58 str. Voditelj: Kralj, Marko
- Delač, I. Rast i svojstva grafena na stepenastim površinama / završni rad - diplomski/integralni studij. Zagreb: Prirodoslovno-matematički fakultet, 20.12.2010., 52 str. Voditelj: Kralj, Marko.
- Šrut, I. Moduliranje dvodimenzionalnog elektronskog plina periodičkim nizom stepenica / diplomski rad. Zagreb: Prirodoslovno-matematički fakultet, 14.7.2010., 87 str. Voditelj: Kralj, Marko.

The two completed PhD theses were written in English and defended in front of international committees. M. Petrović won recognition for his work in 2014 by receiving award from the "Society of university teachers and scientists in Zagreb" for his paper published in Nature Communications. I. Šrut Rakić won prestigious L'oreal-Unesco Fellowship for Women in Science in 2014. At the moment, M. Kralj currently mentors 3 PhD students (B. Pielić, B. Radatović, I. Delač Marion [in co-mentorship with T. Vuletić]). Besides, he participated as a member or president of PhD thesis reviewing committees for University of Zagreb (T. Mišić-Radić 2010, M. Jablan 2012, I. Pletikosić 2012, D. Pelc 2017, Z. Rukelj 2017, G. Pathak 2017), as well as one PhD thesis at University of Aarhus (S. Ulstrup 2014). M. Kralj was a mentor in large number of seminar works. He always actively helps and encourages young researchers in a development of their careers.

## MEMBERSHIP IN SCIENCE ORGANIZATIONS AND BODIES

2016–, Hrvatsko mikroskopijsko društvo (Croatian Microscopy Society), member

2004–, Deutsche Physikalische Gessellschaft (German Physical Society), member

1997–, Hrvatsko fizikalno društvo (Croatian Physical Society), member

1997–, Hrvatsko vakuumsko društvo (Croatian Vacuum Society), member

## COMMISSIONS, COMMITTEES, BOARDS AND WORK GROUPS

2017–2018, vice president of Croatian Physical Society HFD  
2011–2019, member of the Executive board and Treasurer of Croatian Vacuum Society  
2009–2010, Treasurer of Croatian Physical Society  
2007–2010, Electoral college Member of the Applied Surface Science Division (ASSD) of IUVESTA

2008–, Head or a member in committees for scientific positions and titles (Institute of Physics, Ruđer Bošković Institute, Physics and Chemistry Departments at Faculty of Science)

## CONFERENCE ORGANIZATIONS

### *Head of the organizing committee*

- The European Workshop on Epitaxial Graphene and 2D Materials (EWEG/2D'2014), June 15-19, 2014 in Primošten, Croatia

### *Member of the organizing committee*

- 10<sup>th</sup> Croatian Physical Society Meeting, 11-13, 2017 in Baška-Krk, Croatia
- Multinational Congress on Microscopy (MCM2017), September 24-29, 2017 in Rovinj, Croatia
- 16<sup>th</sup> Joint Vacuum Conference (JVC-16/EVC-14/CroSloVM-23), June 6-10, 2016 in Portorož, Slovenia
- 16<sup>th</sup> International Conference on Thin Films (ICTF-16), October 13-16, 2014 in Dubrovnik, Croatia
- 6<sup>th</sup> Croatian Physical Society Meeting, October 8-11, 2009 in Primošten, Croatia

### *Member of the program committee*

- ECOSSE 32, Aug. 28 - Sept. 2, 2016 in Grenoble, France
- 15<sup>th</sup> Joint Vacuum Conference (JVC-15), June 15-20, 2014 in Vienna, Austria
- 21<sup>st</sup> International Scientific Meeting on Vacuum Science and Techniques, May 8-9, 2014 in Samobor, Croatia
- 20<sup>th</sup> International Scientific Meeting on Vacuum Science and Techniques, May 9-10, 2013 in Jerusalem, Slovenia

## PUBLICATIONS

46 published scientific publications in refereed journals

1 book chapter with K. Wandelt, Surface and Interface Science (Wiley, 2012)

1 editorial book with J. Coraux and H. Buljan, European workshop on epitaxial graphene and 2D materials: Booklet of abstracts (Institut za fiziku, 2014)

2 articles on popular science

@WoS-ISI citations: @ResearcherID A-8232-2008, Hirsch Index 15, cites >980

@Google Scholar: <https://scholar.google.com/citations?user=O80SUwcAAAAJ&hl=en>, Hirsch Index 18, cites >1300

## OTHER RELEVANT ACTIVITIES

- **Editorial Board member** "NPJ 2D Materials and Applications", <http://www.nature.com/npj2dmaterials/about/editorial-board>, since August 2016.
- **Referee for:** Nature Physics, Nature Communications, Nano Letters, ACS Nano, JACS, The Journal of Physical Chemistry Letters, Journal of Physical Chemistry C, Physical Review Letters, Physical Review B, Applied Physics Letters, Applied Surface Science, Optics Letters, Surface Science (Elsevier Reviewer Recognition: recognized reviewer & outstanding reviewer), Vacuum, Croatica Chemica Acta, EPJ Plus.
- **Referee for funding agencies:** DOE; Graphene Flagship; Croatian Science Foundation; Ministry of Science and Education of the Republic of Croatia.
- Presented invited and regular talks and posters at more than **55 conferences**.
- **17 invited conference and workshop talks**.
- Visited **research institutes and universities worldwide** (in Germany, Spain, Switzerland, France, Poland, United States, Singapore, Japan, China...). Presented more than **30 seminars or colloquia**.
- Gave about **15 popular talks** in schools, museums, in various societies.
- Popularized science at **TV and Radio** more than **10 times**.

## COMPUTER SKILLS

Widows, Linux, MS-Office, CAD, Image editing, Vector graphics, HTML, ...

## OTHER IMPORTANT SKILLS AND COMPETENCES

Driver's license.

1. High-resolution photoelectron spectroscopy, 10<sup>th</sup> International Meeting of Croatian and Slovenian Vacuum Societies, May 22, 2003, Brdo pri Kranju, Slovenia
2. High-resolution ARPES: a tool for characterizing an electron in a box, Wroclaw-Bonn Workshop on Surface Physics and Chemistry, March 23-26, 2006, Wroclaw, Poland
3. The electronic and structural properties of Al<sub>2</sub>O<sub>3</sub>/Ni<sub>3</sub>Al(111) and their relation to 2-D nanostructuring, From Solid State To BioPhysics III, June 24 - July 1, 2006, Dubrovnik, Croatia
4. Ordered surface structure: Basis of a nanoworld studied by STM (case study - Pd(110)), 11<sup>th</sup> Joint Vacuum Conference - JVC 11, September 24-28, 2006, Prague, Czech Republic
5. Graphene: shaping Dirac fermions for the application, 4<sup>th</sup> International Workshop on Surface Physics, September 21-25, 2009, Ladek-Zdrój, Poland
6. Grafen: oblikovanje Diracovih Fermiona za primjenu, 6<sup>th</sup> Croatian Physical society meeting, October 8-11, 2009, Primošten, Croatia
7. Exploring and exploiting intercalation of epitaxial graphene, The European Workshop on Epitaxial Graphene and 2D Materials, June 15-19, 2014, Primošten, Croatia
8. Exploring the mechanism behind the alkali metal intercalation process in epitaxial graphene, 73 IUVSTA Workshop on Nanostructures on 2D solids, September 22-26, 2014, Eisenerz, Austria
9. 'Chemical' and 'mechanical' engineering of epitaxial graphene, C-MAC Days 2014, December 8-11, 2014, Zagreb, Croatia
10. Tailoring of layered 2D materials: epitaxial graphene and beyond, 22<sup>nd</sup> International Scientific Meeting on Vacuum Science and Technique, May 21-22, 2015, Osilnica, Slovenia
11. Chemical and mechanical nanoengineering of (epitaxial) graphene, Energy Materials and Nanotechnology Qingdao Meeting, June 14-17, 2015, Qingdao, China
12. Epitaksijalni grafen i srodni 2D materijali, 9<sup>th</sup> Croatian Physical society meeting, October 5-7, 2015, Umag, Croatia
13. Graphene applications, Innovation - Driven Defence Enterprising, October 19-20, 2015, Zagreb, Croatia
14. 2D materials modifications and growth controlled in situ, International Workshop on Nanomaterials and Nanodevices, July 8-10, 2016, Beijing, China
15. Synthesis and properties of graphene and transition metal dichalcogenides with atomic-scale precision, Solid-State Science & Research meeting, June 28-30, 2017, Zagreb, Croatia
16. In situ visual observation of 2D materials growth and modifications, and characterization of their optical properties, VI International School and Conference on Photonics - Photonica2017, August 28-September 1, 2017, Belgrade, Serbia
17. Microscopic and spectroscopic characterization of epitaxial graphene and transition metal dichalcogenides, 13<sup>th</sup> Multinational Congress on Microscopy, September 24-29, 2017, Rovinj, Croatia

## Scientific papers

1. *Growth, structure and properties of ultra-thin copper films on a V(110) surface*, M. Kralj, P. Pervan, M. Milun, **Surface Science** 423 (1999) 24–31
2. *STM investigations of contaminated and clean V(100) surface*, M. Kralj, P. Pervan, M. Milun, J. Schneider, B. Schaefer, A. Rosenhahn, K. Wandelt, **Fizika A** 8 (1999) 123–130
3. *Oscillatory Electron-Phonon Coupling in Ultra-Thin Silver Films on V(100)*, T. Valla, M. Kralj, A. Šiber, P.D. Johnson, M. Milun, P. Pervan, D.P. Woodruff, **Journal of Physics: Condensed Matter** 12 (2000) L477–L482
4. *Temperature dependence of photoemission from quantum-well states in Ag/V(100): moving surface-vacuum barrier effects*, M. Kralj, A. Šiber, P. Pervan, M. Milun, T. Valla, P.D. Johnson, D.P. Woodruff, **Physical Review B** 64 (2001) 085411
5. *Growth of copper and vanadium on a thin Al<sub>2</sub>O<sub>3</sub>-film on Ni<sub>3</sub>Al(111)*, A. Wiltner, A. Rosenhahn, J. Schneider, C. Becker, P. Pervan, M. Milun, M. Kralj, K. Wandelt, **Thin Solid Films** 400 (2001) 71–75
6. *Al<sub>2</sub>O<sub>3</sub>-films on Ni<sub>3</sub>Al(111): a template for nanostructured cluster growth*, C. Becker, A. Rosenhahn, A. Wintler, K. von Bergmann, J. Schneider, P. Pervan, M. Milun, M. Kralj, K. Wandelt, **New Journal of Physics** 4 (2002) 75.1–75.15
7. *HRAES, STM and ARUPS study of the (5 × 1) reconstructed V(100) surface*, M. Kralj, P. Pervan, M. Milun, K. Wandelt, D. Mandrino, M. Jenko, **Surface Science** 526 (2003) 166–176
8. *Tetragonal silver films on V(100): Experimental and ab initio studies*, M. Kralj, P. Pervan, M. Milun, P. Lazić, Ž. Crljen, R. Brako, J. Schneider, A. Rosenhahn, K. Wandelt, **Physical Review B** 68 (2003) 195402
9. *d-band quantum well states in ultrathin silver films on V(100)*, M. Kralj, P. Pervan, M. Milun, T. Valla, P.D. Johnson, D.P. Woodruff, **Physical Review B** 68 (2003) 245413
10. *Spin-orbit splitting in ultra thin Ag films on Cu(100)*, V. Mikšić-Trontl, M. Kralj, M. Milun, P. Pervan, **Surface Science** 551 (2004) 125–131
11. *Surface waves on Ag/V(100)*, M. Kralj, M. Milun, P. Pervan, **Surface Science** 557 (2004) 208–214

12. *Determination of the coincidence lattice of an ultra thin alumina films on Ni<sub>3</sub>Al(111)*, S. Degen, A. Krupski, M. Kralj, A. Langner, C. Becker, M. Sokolowski, K. Wandelt, **Surface Science** 576 (2005) L57–L64
13. *Final-state screening dynamics in resonant Auger decay at the 2p edge of vanadium*, V. Ilakovac, M. Kralj, P. Pervan, M.C. Richter, A. Goldoni, R. Larciprete, L. Petaccia, K. Hricovini, **Physical Review B** 71 (2005) 085413
14. *Hybridization schemes for Ag films on V(100)*, M. Kralj, **Surface Science** 599 (2005) 150–159
15. *Nucleation of ordered Fe islands on Al<sub>2</sub>O<sub>3</sub>/Ni<sub>3</sub>Al(111)*, A. Lehnert, A. Krupski, S. Degen, K. Franke, S. Decker, S. Rusponi, M. Kralj, C. Becker, H. Brune, K. Wandelt, **Surface Science** 600 (2006) 1804–1808
16. *Temperature and coverage-dependent evolution of the Au/Pd(110) surface structure*, M. Kralj, A. Bailly, M.-C. Saint-Lager, S. Degen, A. Krupski, C. Becker, P. Dolle, M. De Santis, K. Wandelt, **Surface Science** 600 (2006) 2614–2622
17. *The initial stages of the hydrogen-induced reconstruction of Pd(110) studied with STM*, M. Kralj, C. Becker, K. Wandelt, **Surface Science** 600 (2006) 4113–4118
18. *Atomic structure and electronic properties of Ni<sub>3</sub>Al(111) and (011) surfaces*, L. Jurczyszyn, A. Krupski, S. Degen, B. Pieczyrak, M. Kralj, C. Becker, K. Wandelt, **Physical Review B** 76 (2007) 045101
19. *Scanning tunneling microscopy and spectroscopy investigations of copper phthalocyanine adsorbed on Al<sub>2</sub>O<sub>3</sub>/Ni<sub>3</sub>Al(111)*, M. Moors, A. Krupski, S. Degen, M. Kralj, C. Becker, K. Wandelt, **Applied Surface Science** 254 (2008) 4251–4257
20. *Pd(110) surface oxide structures investigated by STM and DFT*, M. Kralj, T. Pertram, A. Krupski, C. Becker, K. Wandelt, N. Seriani, F. Mittendorfer, **Surface Science** 602 (2008) 3706–3713
21. *Dirac cones and minigaps for graphene on Ir(111)*, I. Pletikosić, M. Kralj, P. Pervan, R. Brako, J. Coraux, A. T. N'Diaye, C. Busse, T. Michely, **Physical Review Letters** 102 (2009) 056808
22. *Characterization of bimetallic Au/Pd(110) surfaces*, M. Moors, T. Kobiela, M. Kralj, T. Pertram, C. Becker, K. Wandelt, **e-Journal of Surface Science and Nanotechnology** 7 (2009) 448–454
23. *Photoemission and DFT study of Ir(111); energy band gap mapping*, I. Pletikosić, M. Kralj, D. Šokčević, R. Brako, P. Lazić, P. Pervan, **Journal of Physics: Condensed Matter** 22 (2010) 135006
24. *Graphene on Ir(111) characterized by angle-resolved photoemission*, M. Kralj, I. Pletikosić, M. Petrović, P. Pervan, M. Milun, A. T. N'Diaye, C. Busse, T. Michely, J. Fujii, I. Vobornik, **Physical Review B** 84 (2011) 075427
25. *Dimerization of Nitrosobenzene Derivatives on Au(111) Surface*, I. Biljan, M. Kralj, T. Mišić Radić, V. Svetličić, H. Vančik, **Journal of Physical Chemistry C** 115 (2011) 20267–20273
26. *Observation of image states in graphene on Ir(111) by two-photon photoemission*, J.I. Dadap, M. Kralj, M. Petrović, K.R. Knox, R. Bhandari, P.-C. Yeh, N. Zaki, R.M. Osgood Jr., **OSA/CLEO** (2011) QTuK6
27. *Trapping Surface Electrons on Graphene Layers and Islands*, D. Niesner, Th. Fauster, J.I. Dadap, N. Zaki, K.R. Knox, P.-C. Yeh, R. Bhandari, R.M. Osgood, M. Petrović, M. Kralj, **Physical Review B** 85 (2012) 081402(R)
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