

CURRICULUM VITAE

CONTACT DATA

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EDUCATION

PhD in physical sciences, 7 Nov 2003

Polish Academy of Sciences, Institute of Low Temperature and Structure Research, Wrocław, Poland
Dissertation: *Strong electronic correlations in selected intermetallic cerium compounds*
Supervisor: Prof. D. Kaczorowski
Concentrations: bulk physical properties of intermetallic compounds based on cerium

MSc in physics, 14 Jul 1999

University of Wrocław, Department of Physics and Astronomy, Wrocław, Poland
Thesis: *Scanning Tunneling Microscope study on hydrogen adsorption on silicon surface*
Supervisor: Prof. J. J. Czyżewski
Concentrations: STM studies, ultra-high-vacuum technique

LICENSURE AND CERTIFICATIONS

Teaching Certificate, 16 Jul 1999

University of Wrocław, *Studium Przygotowania Pedagogicznego* (comparable to Teacher Training Institute), Wrocław, Poland

SPECIAL COURSES

7th School on the Physics and Chemistry of the Actinides, April 2008

Institute of Low Temperature and Structure Research, Polish Academy of Sciences, Wrocław, Poland

5th School on the Physics and Chemistry of the Actinides, April 2004

European Commission, Joint Research Centre, Institute for Transuranium Elements, Karlsruhe, Germany

25th Tutorial Session on Neutron Scattering, Feb 2004

Hahn–Meitner Institute, Berlin, Germany

4th School on the Physics and Chemistry of the Actinides, May 2000

Max Planck Institute for Physics of Complex Systems, Dresden, Germany

LANGUAGES

Polish (mother tongue), English (advanced), Russian (communicative), German (communicative)

PROFESSIONAL EXPERIENCE

Research Associate, since Jul 2006

Polish Academy of Sciences, Institute of Low Temperature and Structure Research, Wrocław, Poland

Advisor: Prof. D. Kaczorowski

Activities: studies of strongly correlated rare-earth and actinide compounds and their solid solutions by means of physical properties measurements at low temperatures and in high magnetic fields

Achievements: characterization of magnetic and related properties of two novel compounds $U_4Rh_{13}Si_9$ and $U_4Ir_{13}Si_9$; evidence of non-Fermi-liquid properties in polycrystalline Ce_2PdIn_8 ; evidence of complex magnetic behaviour in $CeRh_3Si_2$; physical characterization of $URuSi_3$ and $U_3Ru_2Si_7$

Alexander von Humboldt Foundation fellow, Jan 2005 – Jun 2006 (18 months)

Max Planck Institute for Chemical Physics of Solids, Dresden, Germany

Hosts: Prof. F. Steglich, Dr. P. Gegenwart

Activities: studies of strong electronic correlations in selected compounds based on cerium and ytterbium by means of specific heat measurements at low temperatures

Achievements: evidence of a smeared ferromagnetic quantum phase transition in the $CePd_{1-x}Rh_x$ system; evidence of well localized magnetic moments of cerium in single-crystalline $CePt_4In$ and their magnetic ordering at low temperatures; discovery of a two-step phase transition in the cage-like compound $Ce_3Pd_{20}Si_6$; evidence of a field-induced quantum critical point in single-crystalline $YbAgGe$; discovery of a short-range magnetic ordering in a Kondo compound $Ce_3Rh_4Sn_{13}$

Research Associate, Oct 2003 – Dec 2004

Polish Academy of Sciences, Institute of Low Temperature and Structure Research, Wrocław, Poland

Advisor: Prof. D. Kaczorowski

Activities: physical-properties measurements of rare earth and actinide compounds at low temperatures and in high magnetic fields

Achievements: characterization of thermoelectric properties of the compounds $USbSe$, $USbTe$, and the solid solutions $CePd_3Ge_x$ and $CePd_3Al_x$

Max Planck Society fellow, Oct 2000, Sep 2001, Aug 2002, Jan 2004 (4 months in total)

Max Planck Institute for Chemical Physics of Solids, Dresden, Germany

Hosts: Prof. Yu. Grin, Dr. A. Leithe-Jasper

Activities: polycrystalline sample preparation (arc melting) and characterization (X-rays)

Achievements: successful chemical preparation and crystallographical characterization of the compounds $Ce_{1-x}La_xPt_4In$, $YNiGe_3$, $La_2Ni_3Ge_5$, La_3NiGe_2 , $La_3Ni_2Ge_7$, $Ce_{12}Pt_7In$, $CePt_2In_2$, $LaPt_2In_2$

Visiting Scientist, Jul 2001 (2 weeks)

Institute for Solid State Physics, Technical University of Vienna, Wien, Austria

Hosts: Prof. E. Bauer, Prof. H. Michor

Activities: low-temperature and high-magnetic-field specific-heat measurements

Achievements: evidence of a heavy-fermion state in the compounds $CeNiGe_3$ and Ce_3NiGe_2

Visiting Scientist, May 2000, Jun 2001, May 2004 (2 months in total)

Institute for Physical Chemistry, University of Vienna, Wien, Austria

Host: Prof. P. Rogl

Activities: polycrystalline sample preparation (arc melting) and structural characterization (X-rays)

Achievements: successful chemical preparation and crystallographical characterization of the compounds $CeNiGe_3$, $Ce_2Ni_3Ge_5$, Ce_3NiGe_2 , $Ce_3Ni_2Ge_7$ and several other phases from the ternary systems $Ce-Ni-In$ and $Ce-Ni-Sn$

PhD student, Oct 1999 – Sep 2003

Polish Academy of Sciences, Institute of Low Temperature and Structure Research, Wrocław, Poland

Supervisor: Prof. D. Kaczorowski

Activities: bulk physical-properties (magnetic, electrical-transport and thermodynamic) measurements at low temperatures and in high magnetic fields

Achievements: physical characterization of several completely new or poorly known ternary compounds from the systems $Ce-Ni-Ge$ and $Ce-Pt-In$, namely: polycrystalline $CeNiGe_3$, $Ce_2Ni_3Ge_5$, Ce_3NiGe_2 , $Ce_3Ni_2Ge_7$, $CePt_2In_2$, $CePt_4In$, $Ce_{12}Pt_7In$, and single-crystalline $CeNiGe_2$ and $Ce_6Pt_{11}In_{14}$

TEACHING

Polish Academy of Sciences, Institute of Low Temperature and Structure Research, Wrocław, Poland
supervision projects of undergraduate students: 4
public popular science talks: 5
refereed MSc theses: 1

PUBLICATIONS

Articles in refereed international journals: 38
Conference contributions: 43
Other articles: 2
Invited talks: 1

HONORS AND AWARDS

Outstanding Dissertation Award, Nov 2003

Scientific Council of the Institute of Low Temperature and Structure Research, Polish Academy of Sciences,
Wrocław, Poland

FELLOWSHIPS

Return Fellowship, 2006

Alexander von Humboldt Foundation, Germany

Humboldt Research Fellowship, 2004

Alexander von Humboldt Foundation, Germany

Conference Fellowship, 2003

Warsaw Scientific Society & Polish Science Foundation, Poland

Conference Fellowship, 2001

Warsaw Scientific Society & Polish Science Foundation, Poland

Max Planck Society doctoral scholarship for foreigners, 2000

Max Planck Society, Germany

CONFERENCE CO-ORGANIZATION

International Conference "*38èmes Journées des Actinides*"

together with the 7th School on the Physics and Chemistry of the Actinides

12–15 April 2008, Wrocław, Poland

INTERNATIONAL PROJECTS (selected)

French–Polish Integrated Activity Program "Polonium", 2009–2010

Ministry of Education and Science, France & Ministry of Science and Higher Education, Poland
Co-investigator

French–Polish Integrated Activity Program "Polonium", 2007–2008

Ministry of Education and Science, France & Ministry of Science and Higher Education, Poland
Co-investigator

Afrikan–Polish Scientific–Technical Exchange Program, 2007

National Scientific Research Foundation, South Africa & Polish Academy of Sciences, Poland
Co-investigator

Austrian–Polish Scientific–Technical Exchange Program, project No. 19/2003, 2003–2004

Austrian Exchange Service, Austria & Polish Academy of Sciences, Poland
Project title: *Cerium intermetallics for novel thermoelectric applications*
Co-investigator

Austrian–Polish Scientific–Technical Exchange Program, project No. 14/2001, 2001–2002

Austrian Exchange Service, Austria & Polish Academy of Sciences, Poland
Project title: *Novel Heavy Fermion Systems*
Co-investigator

Austrian–Polish Scientific–Technical Exchange Program, project No. 13/1999, 1999–2000

Austrian Exchange Service, Austria & Polish Academy of Sciences, Poland
Project title: *Novel Non-Fermi Liquid Materials*
Co-investigator

RESEARCH GRANTS (selected)

Grant No. N N202 102338, Mar 2010 – Feb 2012

Ministry of Science and Higher Education, Poland
Project title: *Influence of chemical pressure and magnetic dilution on a ground state of selected f-electron systems*
Head of the project and principal investigator (60% effort), budget: 133 400 PLN

Grant No. N N202 193234, 31 Mar 2008 – 30 Mar 2010

Ministry of Science and Higher Education, Poland
Project title: *Critical phenomena in tricritical Lifshitz point in magnetocaloric studies*
Principal investigator (30% effort), budget: 273 200 PLN

Grant No. N202 116 32/3270, 20 Mar 2007 – 19 Mar 2010

Ministry of Science and Higher Education, Poland
Project title: *Investigation of anomalous physical phenomena appearing close to the quantum critical point*
Principal investigator (30% effort), budget: 270 000 PLN

Grant No. 2 P03B 028 23, 17 Oct 2002 – 16 Jan 2004

State Committee for Scientific Research, Poland
Project title: *Strong electronic correlations in selected compounds based on cerium*
Principal investigator (70% effort), budget: 20 000 PLN

Grant No. 2 P03B 150 17, 15 Aug 1999 – 14 Aug 2002

State Committee for Scientific Research, Poland
Project title: *Strongly correlated states in ternary uranium compounds (continuation)*
Co-investigator (5% effort), budget: 190 000 PLN

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Societas Humboldtiana Polonorum, Poland, member since 2006

Polish Physical Society, Poland, member since 2005
