Prof. Dr. Jozef J a n o v e c

Curriculum vitae
Last update on February 1st, 2025

I. Education

- Student of Materials Science (1975-1980) at the Technical University in Košice (Slovakia). Graduated with Distinction in 1980.
- Postgraduate student (1981-1984) at the Technical University in Košice under leading of Prof. V. Karel. Doctoral thesis: ***Influence of phase transformations on some physical-metallurgical characteristics of titanium alloys***. Dr. degree awarded in 1986.
- DrSc. degree awarded in 1998. DrSc thesis: ***Grain boundary segregation, secondary phase precipitation, and intergranular embrittlement of alloy steels***.
- Habilitated at the University of P. J. Šafárik Košice in 2000. Thesis for habilitation: ***Effects of segregation and precipitation on intergranular embrittlement of polycrystalline iron-base systems***.
- Inaugurated at the Slovak University of Technology in 2008. The inauguration talk: ***Advanced approaches to identification and characterisation of minor phases in alloy steels.***

II. Research experience

- 1981 - 1984, ***Central Laboratory for Electron Microscopy*** of the Technical University in Košice. TEM and SEM investigation of titanium alloys.
- 1984 – 2002, ***Institute for Materials Research*** of the Slovak Academy of Sciences in Košice. Investigation of both segregation and precipitation phenomena in alloy steels for energy industries.
- 1993 – 1994 (13 months), visiting scientist at the ***Max-Planck-Institut für Eisenforschung*** in Düsseldorf in the research group of Prof. H. J. Grabke. Investigation of both grain boundary segregation and secondary phase precipitation in 9-12 % Cr steels during long-term ageing; identification of Fe-Mo-Cr quasicrystalline particles after long-term annealing at 750 K.
- 1999 (6 months), visiting professor at the ***Joining and Welding Institute of the Osaka University***. In cooperation with Prof. K. Ikeuchi, TEM investigation of the M-A constituent in low alloy Mn-Mo steels for energy industries.
- 2003 – 2005, ***Institute of Metals and Technology*** in Ljubljana. Investigation of phase transformations and surface phenomena in both crystalline and quasicrystalline metallic materials. Performing thermodynamic calculations.
- 2002 – 2015, ***Institute of Materials Science*** of the Faculty of Materials Science and Technology of the Slovak University of Technology in Bratislava. Investigation of both complex metallic alloys and secondary phases in alloy steels.
- 2015 – 2019, ***University Scientific Park*** of the Slovak University of Technology in Bratislava. Investigation of structurally complex phases in metallic systems and high-temperature oxide-base superconductors.

- 2019 – lasts for, ***Institute for Materials Research*** of the Slovak Academy of Sciences in Košice (public research institution) and ***Institute of Materials*** of the Faculty of Materials, Metallurgy and Recycling of the Technical University of Košice. Completing overview publications from results achieved earlier and teaching activities.

III. Main research projects

- 1991 – 1993, principal investigator of the VEGA (national grant agency) project No. 2/9/92 ***Rules of intergranular embrittlement in polycomponent Fe-base systems***.
- 1995 – 1997, principal investigator of the VEGA project No. 2/2001/95 ***Rules of intergranular embrittlement in polycrystalline systems***.
- 1995 – 1997, principal investigator (together with Prof. Dr. H. J. Grabke) of the German-Slovak project No. X262.51 ***Role of vanadium in low alloy steels for energy industries***.
- 1998 – 2000, principal investigator of the VEGA project No. 2/2561/98 ***Termodynamics, kinetics, and mechanizmus of equilibrium grain boundary segregation in polycrystalline materials***.
- 1998 – 2001, principal investigator of the project SLE1 ***Thermodynamics and kinetics of grain boundary segregation in iron-base polycrystalline alloys*** in the framework of COST action 517 ***Cleaner Metals for Industrial Exploitation***.
- 1999 – 2002, principal investigator (together with Prof. Dr. H. J. Grabke) of the German-Slovak project SLA-005-99 ***Grain boundary analyses of new 9-12 % Cr-steels***.
- 2001 – 2004, co-investigator of the project No. G1RD-CT-2001-00490 ***SmartWeld*** in the 5th Framework Program of European Commission.
- 2003 – 2004, co-investigater of the Slovenian-Czech bilateral project ***Grain boundary fracture and solute segregation in steels***.
- 2004 – 2005, co-investigator of the Slovenian national program P2-0132 ***Physics and chemistry of surfaces in metallic materials***.
- 2005 – 2009, participation in the Network of Excellence ***Complex Metallic Alloys*** organised in the 6th Framework Program of European Commission.
- 2005 – 2007, co-investigator of the VEGA project No. 1/2113/05 ***Investigation of the influence of plastic deformation on corrosion resistance of selected types of austenitic stainless steels***.
- 2007 – 2009, principal investigator of the VEGA project No. 1/4107/07 ***Characterisation of quasicrystals and their approximants in alloys Al-Pd-TM (TM = transition metal)***.
- 2006 – 2011, participant in the COST action MP0602 ***Advanced solder materials for high temperature application***.
- 2009 – 2010, principal investigator (together with Prof. Dr. J. Eckert) of the German-Slovak DAAD project ***Metal matrix composites reinforced with complex metallic alloys***.
- 2010 – 2011, principal investigator of the VEGA project No. 1/0011/10, ***Characterization of structurally complex materials with the intention to enhance their applicability***.

- 2012 – 2014, principal investigator of the VEGA project No. 1/0143/12 ***Influence of exposition conditions on development of binary and ternary phases in aluminium-base complex metallic alloys***.
- 2012 – 2015, principal investigator of the project APVV 0076-11 ***Investigation of crystal structure and thermodynamic properties of complex metallic alloys of Al- and Zn-types.***
- 2013, principal investigator of the project EURATOM 442b ***Degradation of HTS tapes in cabling technologies for DEMO***.
- 2015 – 2018, principal investigator of the project VEGA No. 1/0018/15 ***Regularities of formation and thermodynamic stability of structurally complex phases in alloys of Al- and Zn-types***.
- 2015 – 2018, co-investigator of the project APVV-14-0438 ***Investigation of design and manufacturing methods for coils from round high-temperature superconducting conductor***.
- 2016-2020, principal investigator of the project APVV-15-0049 ***Advancement of knowledge in area of advanced metallic materials by use of up-to-date theoretical, experimental, and technological procedures***.

IV. Teaching activities

- Responsibility for teaching altogether ***9 subjects*** on 4 universities (see below).
- Author/coauthorof ***3 books for university students*** and ***6 textbooks***. They were printed by publishing houses of 4 universities.
- Supervisor of altogether ***9 successfully graduated PhD-students***.

Subjects taught at universities

(the related universities are denoted with their official abbreviations)

name of subject	university	study degree	type of activity	period
Physics of Materials	PF UPJŠ	second	lecture, seminar	1995-2002
Non-conventional Metallic Materials				
Materials and Technologies	HF TUKE	second	lecture, seminar	2002
Materials Science	MTF STU	second	lecture, seminar	2005-2007
New Materials				
New Materials and Technologies				
Advanced Materials and Technologies	MTF STU	second	lecture	2008-2015
	FMMR TUKE			2021-trvá
Functional Materials and Nanomaterials	FSI VUT	second	lecture, seminar	2018-2023
Advanced Materials	FMMR TUKE	third		2021-trvá

V. Awards

- 1980, ***medalist*** of the Technical University in Košice at the occasion of graduation.
- 1990 – 1992 and 2001 – 2002, member of the Scientific Council of the Slovak Academy of Sciences.
- 1991 – 1994, member of the Scientific Council of the Metallurgical Faculty of Technical University in Košice.
- 1992, Max-Planck fellowship granted by Max-Planck-Gesellschaft (Germany).
- 1999 – 2018, member of the Editorial Board of the scientific journal Kovové Materiály – Metallic Materials.
- 2007 – 2015, member of the Scientific Council of the Faculty of Materials Science and Technology of the Slovak University of Technology in Bratislava.
- 2011 – 2021, member of the Slovak Commission for Scientific Degrees at the Ministry for Education of Slovak Republic.
- Scientist of year 2012 at the Slovak University of Technology in Bratislava in category "distinguished scientific contribution".
- 2021, the winner of the ***Plaquette*** of the Slovak University of Technology in Bratislava.