



prof. RNDr. Peter Kollár, DrSc.

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Current position(s):

professor

Deputy Director of the Institute of Physics, Faculty of Science P. J. Šafárik University

Profile:

Prof. RNDr. Peter Kollár, DrSc. in his scientific research he investigate magnetization processes at magnetic reversal of soft materials. He investigated thin ferromagnetic layers, amorphous and nanocrystalline materials prepared by rapid quenching, and currently he deals mainly with powdered, compacted metallic and composite materials. Furthermore, he also study non-oriented Fe-Si materials produced in the form of thin strips.

He is co-author of more than 115 scientific publications registered in the Current Content, 12 lectures at home and abroad and his publications have more than 460 citations.

He was member of organizing committees of domestic and foreign conferences: EMMA'93, SMM 17, CSMAG (1998 - present), FKM, (2013-present), he edited several conference proceedings.

Experience:

1983-1985 – Study stay at Department of Experimental physics, Faculty of Science P. J. Šafárik University

1985-1990 – Research co-worker at Department of Experimental physics, Faculty of Science P. J. Šafárik University

1991-1996 – Assistant professor at Department of Experimental physics, Faculty of Science P. J. Šafárik University

1996-2009 – Associate professor, at Department of Experimental physics, Department of Condensed Matter Physics, Faculty of Science P. J. Šafárik University

2009-present - Professor Department of Condensed Matter Physics, Faculty of Science P. J. Šafárik University

1991-1997 – Deputy head Department of Experimental physics, Faculty of Science P. J. Šafárik University

1997-2011- Head Department of Experimental physics, Faculty of Science P. J. Šafárik University

1997-2009- Deputy Director for Academic Affairs of the Institute of Physics, Faculty of Science P. J. Šafárik University

2011- Deputy Director for Research of the Institute of Physics, Faculty of Science P. J. Šafárik University

Organisation of Scientific Meetings:

1. Number of organizing committee of the international conference EMMA'93 August. 24.-27., 1993 Košice,
2. Number of programme committee of the international conference SMM 17, September 7.-9. 2005, Bratislava
3. Number of organizing committee of the conference CSMAG'98, August 24.-27., 1998, Košice
4. Number of organizing committee of the conference CSMAG'01, August 20.-23., 2001, Košice
5. Number of organizing committee of the conference – publication committee CSMAG'04, July, 12.-15. 2004, Košice
6. Number of organizing committee of the conference CSMAG'07, 9.-12. júl 2007, Košice
7. Number of organizing committee of the conference - publication committee CSMAG'10, 6.-9.júl 2010, Košice

8. Number of organizing committee of the conference e – publication committee CSMAG'13, 17.-21. jún 2013, Košice
9. Number of organizing committee of the conference - publication committee CSMAG'16, 13.-17. jún 2016, Košice
10. Number of organizing committee of the conference – scientific guarantor, Functional Composite Materials FKM, 17. 5. 2013, Košice
11. Number of organizing committee of the conference – scientific guarantor, Functional Composite Materials FKM, 19. 5. 2015, Košice
12. Number of organizing committee of the conference – scientific guarantor, Functional Composite Materials FKM, 3. 10. 2017, Košice
13. Number of organizing committee of the conference - publication committee, Functional Composite Materials FKM, 16. 10. 2018, Košice

Projects:

1. Progressive technology for the preparation of microcomposite materials for electrotechnics, MIKROMATEL, (applicant IMR SAS) 2620002 OP Research and Development, Priority Axis 2 - Support for Research and Development, 2.2 Transfer of knowledge and technology acquired through research and development into practice, OPVaV-2009/2.2/04-SORO, 526572 ITMS Project code:26220220105 – principal investigator of the UPJŠ partner.
2. Grant project of Slovak Research and Development Agency APVV – 0222-10, 2011-2014, Microstructure and Properties of Powder Micro- and Nano-Composite Materials for Mid-Frequency Magnetic Applications, (Principal investigator IMR SAS- doc. Ing. Eva Dudrová, CSc.), principal investigator of the UPJŠ partner.
3. Grant project of scientific grant agency of Ministry of Education and Slovak Academy of Sciences VEGA 1/0861/12, 2015 – 2018, Electromagnetic properties of soft magnetic composite materials, deputy of principal investigator.
4. Grant project of Slovak Research and Development Agency APVV-15-0115, 2016-2019, Structure Design and Functional Properties of Soft Magnetic Composite Materials Based on 3-D Transition Metals, principal investigator
5. Grant project of scientific grant agency of Ministry of Education and Slovak Academy of Sciences VEGA 1/0377/16, 2016 – 2019, Magnetisation and relaxation processes in magnetic particles and composites, principal investigator.

Five representative publications:

1. E. A. Périgo, B. Weidenfeller, P. Kollár, J. Füzer, Past, present, and future of soft magnetic composites (Review), Applied Physics Reviews 5, (2018), 031301
2. P. Kollár, D. Olekšáková, V. Vojtek, J. Füzer, M. Fáberová, R. Bureš, Steinmetz law for ac magnetized iron-phenolformaldehyde resin soft magnetic composites, Journal of Magnetism and Magnetic Materials, 424, (2017), 245-250
3. S. Dobák, J. Füzer, P. Kollár, M. Strečková, R. Bureš, M. Fáberová, A comprehensive complex permeability approach to soft magnetic bulk cores from pure or resin coated Fe and pulverized alloys at elevated temperatures, Journal of Alloys and Compounds, 695, (2017), 1998-2007
4. P. Kollár, Z. Birčáková, J. Füzer, R. Bureš, M. Fáberová, Power loss separation in Fe-based composite materials, J. Magn. Magn. Mater., 327 (2013), 146-150
5. P. Kollár, J. Kováč, J. Füzer, P. Sovák, E. Pancuráková, M. Konč, The structure and magnetic properties of a powder FeCuNbSiB material, J. Magn. Magn. Mater., 215 (2000), 560-562

Patents:

The patent application has been registered by the Patent Office. Bureš, R., Strečková, M., Fáberová, M., Kollár, P., Füzer, J., Method of Preparation of Magnetic Composites with Polymeric Electrical Insulating Bonding: Patent application PP 00095-2013. Banská Bystrica: ÚPV SR 2013.

Fellowships / Awards / Memberships of Scientific Societies:

2009 - Dean's Award, Faculty of Sciences P. J. Šafárik University, for pedagogical activity

2010 - Dean's Award, Faculty of Sciences P. J. Šafárik University, for Scientific Activity

2015 - Prize of Slovak Physical Society for Scientific Activity

2016 - Rector's Award, P. J. Šafárik University, for the Research and Development Activity