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Employment and positions

Institute of Metallurgy and Materials Science, Polish Academy of Sciences: Ph.D. studies (2004-2008), assistant (2005), assistant professor (2008).

Scientific Carrier

M.Sc.: Ufa State Aviation Technical University, Ufa, Russia, 2004

Ph.D.: Institute of Metallurgy and Materials Science, Polish Academy of Sciences, 2008

Scientific achievements

54 papers, among them 24 cited by the Institute for Scientific Information in Philadelphia.

The most relevant publications during last 5 years

1.

A. Korneva, B. Straumal, O. Kogtenkova, Y. Ivanisenko, A. Wierzbicka-Miernik, A. Kilammetov, P. Zięba, Microstructure evolution of Cu - 22 % In alloy subjected to the high pressure torsion, IOP Conf. Series: Materials Science and Engineering 63 (2014) 012093.

2.

B. B. Straumal, A. R. Kilammetov, Yu. O. Kucheev, K. I. Kolesnikova, **A. Korneva**, P. Zięba, B. Baretzky, Transformation of Hume-Rothery Phases under the Action of High Pressure Torsion, JETP Letters, Vol. 100, No. 6 (2014) 376-379.

3.

A. Korneva, Microstructural changes in Cu-5.8 at.% In alloy caused by high pressure torsion, International Journal of Material Research, 106 (2015) 7 810-812

4.

B. B. Straumal, A. R. Kilammetov, Y. G. Ivanisenko, A. A. Mazilkin, O. A. Kogtenkova, L. Kurmanaeva, **A. Korneva**, P. Zięba, B. Baretzky, Phase transitions induced by severe plastic deformation: steady-state and equifinality, International Journal of Material Research, 106 (2015) 7 657-664

5.

A. Korneva, B. Straumal, A. Kilammetov, R. Chulist, P. Straumal, P. Zięba, Phase transformations in a Cu-Cr alloy induced by high pressure torsion, Materials Characterization, 114 (2016) 151-156.

6.

A. Korneva, B. Straumal, R. Chulist, A. Kilmametov, G. Cios, P. Bała, N. Schell, P. Zięba, Grain refinement of intermetallic compounds in the Cu-Sn system under high pressure torsion, *Materials Letters*, 179 (2016) 12-15.

7.

A. Korneva, B. Straumal, A. Kilmametov, G. Cios, P. Bała, P. Zięba, Effect of high pressure torsion on microstructure of Cu - Sn alloys with different content of Hume Rothery phase, *Materials Characterization*, 118 (2016) 411-416.

8.

O. Kogtenkova, B. Straumal, **A. Korneva**, T. Czeppe, A. Wierzbicka-Miernik, M. Faryna, P. Zięba, Grain boundary complexions and phase transformations in Al- and Cu-based alloys, *Metals*, 9 (2019) 1-24.

9.

B. B. Straumal, **A. Korneva**, A. R. Kilmametov, L. Lityńska-Dobrzyńska, A. S. Gornakova, R. Chulist, M. I. Karpov, P. Zięba, Structural and mechanical properties of Ti-Co alloys treated by high pressure torsion, *Materials*, 12 (2019) 426-437.

10.

A. Korneva, B. Straumal, A. Kilmametov, R. Chulist, G. Cios, B. Baretzky, P. Zięba, Dissolution of Ag precipitates in the Cu-8wt.%Ag alloy deformed by high pressure torsion, *Materials*, 12 (2019) 447-459.

Chapters in books:

1.

K. Sztwierz, M. Bieda, **A. Korneva**, *Application of orientation mapping in TEM and SEM for study of microstructural evolution during annealing. Example*
: Aluminum alloy with bimodal particle distribution, InTech, Recrystallization, ISBN:

978-953-51-0122-2 (2012) 43-58

2.

M. Bieda, **A. Korneva**, K. Sztwiertnia, *Orientation Microscopy in Transmission Electron Microscope - Investigations of small Orientations Changes by Means of Orientation Mapping in TEM, InTech*, The Transmission Electron Microscope, ISBN: 978-953-51-0450-6, (2012) 51-68

3.

A. Korneva, P. Zięba, *Przemiany fazowe w stopach na bazie miedzi wymuszone przez intensywne odkształcenie plastyczne*, 65 lat Instytutu Metallurgii i Inżynierii Materiałowej im. A. Krupkowskiego Polskiej Akademii Nauk, ISBN: 978-83-60768-41-9, Wydawca: IMIM PAN, (2017) 233-245

Research Projects

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Optimization of the operating properties of hard magnetic alloys of the system Fe-Cr-Co. Gradient microstructure magnets. (Projekt N507 530539) IMIM PAS, supervisor, 2010 - 2013.

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Bulk and interfacial phase transformations driven by severe plastic deformation. (International research project N 2011-01-M-ST8-07822), IMMS PAS, contractor, 2011-2014.

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Analysis of the parameters leading to steady-state in Cu-based alloys subjected to high pressure torsion. (Project OPUS UMO-2014/13/B/ST8/04247) IMMS PAS, contractor, 2015 - 2018.

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Fundamentals of phase transformation of metastable omega phase caused by intense plastic deformation in titanium alloys. (project NCN 2017/27/B/ST8/01092) IMMS PAS, supervisor, 10.08.2018-09.08.2021.

Experience gained abroad

Marie Curie Summer Schools, Estremoz, Portugal, 2007 (10 days).

French-Polish joint meeting, Paris, France, 2008 (3 days).

Prizes and awards

2010 - Winner of the Program Pomost

2013 - 3rd Prize for poster contribution on AMT 2013

Main scientific interest

Phase transformations; severe plastic deformation; mechanical and magnetic properties; techniques of scanning and transmission electron microscopy.