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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** citeted by the Institute for Scientific Information in Philadephia.

The most relevant publications during last 5 years

1.

A. Korneva, B. Straumal, O. Kogtenkova, Y. Ivanisenko, A. Wierzbicka-Miernik, A. Kilmametov, P. Zieba, 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. Kilmametov, 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. Kilmametov, 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. Kilmametov, 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, Materals, 12 (2019) 447-459.

Chapters in books:

1.

K. Sztwiertnia, 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 Institutu 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 had 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.

-

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, Portugalia, 2007 (10 days).

French-Polish joint meeting, Paris, Francja, 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.