Curriculum Vitae

Personal information

First name / Surname	**Ing. Kristýna Halmešová** (née Burcalová) , **Ph.D.**		
Address	Nový Dvůr e.č.30, Myslív 34101,Czech Republic		
T:	+420 377 197 351	M:	-
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Nationality	Czech Republic		
Date of birth	9.12.1980	Gender	Female

Education

Dates	9/2004 – 3/2011
Title of qualification awarded	**Ph.D.**
Principal subjects	Physics of plasma and thin films
Name of organisation	Department of physics, Faculty of applied sciences, University of West Bohemia in Pilsen
Dates	9/1999 – 6/2004
Title of qualification awarded	**Ing.**
Principal subjects	Physics of technological processes and physical technologies
Name of organisation	Department of physics, Faculty of applied sciences, University of West Bohemia in Pilsen

Work experience

Dates	3/2016 -
Occupation or position held	**Research scientist**
Main activities and responsibilities	Thermophysical measurements
Employer	**COMTES FHT a.s.**
Type of business or sector	*Mechanical engineering*
Dates	1/2009-2/2016
Occupation or position held	Material engineer
Main activities and responsibilities	Metallography and creep tests
Employer	**Exova s.r.o.**
Type of business or sector	Material testing
Dates	1/2005 -12/2008
Occupation or position held	**Research assistant**
Main activities and responsibilities	Researcher
Employer	Department of physics, Faculty of applied sciences, **University of West Bohemia in Pilsen**
Type of business or sector	Plasma physics

Research internships

Sheffield Hallam University - Nanotechnology Centre for PVD Research, 01/2008-04/2008

K. Halmešová was a member of research group at the University of West Bohemia from 2005 to 2009, and then she got experiences in materials in industrial company dealing with the testing of materials. After that, she spent several years on maternity holidays (2009-2015). In 2016 she has become a member of research organization, where she got experiences especially in testing of thermo-physical properties of materials (such as magnesium alloys, titanium alloys and materials prepared by **additive manufacturing** – SLM and DED deposition) and currently is involved in several research projects:

- 3D COVER: Metallic materials in the process chain of **additive manufacturing**
- New generation of joint implants manufactured from a beta titanium alloy,

and is an author or co-author of several **accepted publications** (20 according to the Web of Sciences):

Trojanová Z., Halmešová K., Džugan J., Drozd Z., Minárik P., Lukáč P.Effect of Equal Channel Angular Extrusion on the Thermal Conductivity of an AX52 Magnesium Alloy, Crystals 2020, 10, 496-505.

Džugan J., Halmešová K., Ackermann M., Koukolíková M., Trojanová Z., Thermo-physical properties investigation in relation to deposition orientation For SLM deposited H13 steel, Thermochimica Acta 683, 2020, 178479.

Preisler D., Janecek M., Harcuba P., Dzugan J., Halmesova K., Malek J., Veverkova A., Strasky J. The Effect of Hot Working on the Mechanical Properties of High Strength Biomedical Ti-Nb-Ta-Zr-O Alloy, Materials,12, 2019.

Trojanová Z. Drozd Z., Škraban T., Minárik P., Džugan J., Halmešová K., Németh G., Lukáč P., and Chmelík F. , Effect of Rotary Swaging on Microstructure and Mechanical Properties of an AZ31 Magnesium Alloy, Adv. Eng. Mater 2020,22, 1900596.

Trojanová Z., Drozd Z., Mathis K., Kover M., Džugan J., Lukáč P. and Halmešová K., Anisotropy of mechanical properties of an AZ31 alloy prepared by SPD method, Advanced Materials Letters 2019 10(12), 887-892.

Trojanova Z, Halmesova K, Dzugan J., Palcek P, Minarik P, Lukác P Influence of strain rate on deformation behaviour of an AX52 alloy processed by equal channel angular pressing (ECAP), Letters on Materials,Vol.8 Issue 4 ,2018, 517-523

D. Preisler et al., "Cold Swaging and Recrystallization Annealing of Ti-Nb-Ta-Zr-O Alloy - Microstructure, Texture and Microhardness Evolution", Materials Science Forum, Vol. 941, 2018, pp. 1132-1136.

Trojanová Z, Džugan J, Halmešová K, Németh G, Minárik P, Lukáč P, Bohlen J. Influence of Accumulative Roll Bonding on the Texture and Tensile Properties of an AZ31 Magnesium Alloy Sheets. Materials. 2018; 11(1):73.

Drozd, Z., Trojanová, Z., Halmešová, K., Džugan, J., Lukáč, P., Minárik, P.: Anisotropy of thermal expansion in an AZ31 Magnesium Alloy Subjected to the Accumulative Roll Bonding, Acta Physica Polonica A, 2018, 134(3), pp. 820-823.

Trojanová, Z., Džugan, J., Halmešová, K., Németh, G., Minárik, P., Lukáč, P.: Effect of Accumulative Roll Bonding of an AZ31 Alloy on the Microstructure and Tensile Stress, Acta Physica Polonica A, 2018, 134(3), pp. 863-866.

Z. Trojanová, K. Halmešová, Z. Drozd, V. Šíma, P. Lukáč, J. Džugan, and P. Minárik, Thermal conductivity of an AZ31 sheet after accumulative roll bonding, Crystals, 2018, 8(7),278.

Trojanova Z, Drozd Z, Lukac P, Minarik P, Dzugan J, Halmesova K, Amplitude-dependent internal friction in AZ31 alloy sheets submitted to accumulative roll bonding, Low temperature physics, Vol 44, issue 9, 2018, 966-972.

Mathis K, Kover M., Straska J., Trojanova Z, Dzugan J, Halmesova K. Micro-Tensile Behavior of Mg-Al-Zn Alloy Processed by Equal Channel Angular Pressing (ECAP), Materials 2018, 11(9)1644.

K. Halmešová, Z. Trojanová, J. Džugan, Z. Drozd, P. Minárik and M. Knapek: Anisotropy of mechanical and thermal properties of AZ31 sheets prepared with ARB technique, IOP Conf. Series: Materials Science and Engineering 219 (2017) 012023, doi:10.1088/1757-899X/219/1/012023.

Z.Trojanová, P. Lukáč, J. Džugan and K. Halmešová: Amplitude Dependent Internal Friction in a Mg-Al-Zn Alloy Studied after Thermal and Mechanical Cycling, Metals 2017, 7, 433 doi:10.3390/met7100433.

J.Vlcek, K.Burcalova: A phenomenological equilibrium model applicable to high-power pulsed magnetron sputtering, Plasma sources science & Technology, 19, 2010, 065010.

P. Kudlácek, J. Vlcek, K. Burcalová, J. Lukáš, and J. Musil: Highly ionized fluxes of sputtered titanium atoms in high-power pulsed magnetron discharges, Plasma Sources Sci. Technol. 17, 2008, 025010.

A. Hecimovic, K. Burcalova, A. P. Ehiasarian: Origins of ion energy distribution function (IEDF) in high power impulse magnetron sputtering (HIPIMS) plasma discharge, J. Phys. D: Appl. Phys. 41, 2008, 095203.

K. Burcalova, A. Hecimovic, A. P. Ehiasarian: Ion energy distributions and efficiency of sputtering process in HIPIMS system, J. Phys. D: Appl. Phys., 41, 115306.

J. Vlcek, P. Kudlácek, K. Burcalová, and J. Musil: Ion flux characteristics in high-power pulsed magnetron sputtering discharges, Europhys. Lett. 77,2007, 45002.

J. Vlcek, P. Kudlácek, K. Burcalová, and J. Musil: High-power pulsed sputtering using a magnetron with enhanced plasma confinement, J. Vac. Sci.Technol. A 25, 2007, 42.