

Prof. Dr. SIDOR Jurij

PERSONAL DATA

YEAR OF BIRTH: 1977

CONTACT: JS@inf.elte.hu

EDUCATION

Year	Institution	Title of qualification awarded
2000/03	Institute of Materials Research, Slovak Academy of Sciences	Ph.D. in Materials Engineering and Critical State of Materials
1994/99	Uzhgorod National University, Faculty of Physics, Ukrainian Ministry of Education	Engineer in physics and technology of materials and components of electronic technique (honours diploma)

PhD THESIS: “MICROSTRUCTURE DEVELOPMENT IN ISOTROPIC ELECTRICAL STEELS”, **Kosice, Slovakia - 2004.**

HABILITATION WORK: “TEXTURE EVOLUTION IN METALS DURING CONVENTIONAL AND INNOVATIVE PROCESING”, **Miskolc, Hungary - 2018.**

WORK EXPERIENCE

- Dates (from – to)
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
 - Dates (from – to)
 - Name and address of employer
 - Type of business or sector
 - Occupation or position held
 - Main activities and responsibilities
- 1.09.2019- present**
Eötvös Loránd University
Károlyi Gáspár tér 4, 9700 Szombathely, Hungary
Department of Materials Science and Engineering
Full Professor
Teaching, Research and Management
- 1.02.2017- 31.08.2019**
Eötvös Loránd University
Károlyi Gáspár tér 4, 9700 Szombathely, Hungary
Department of Materials Science and Engineering
Associate Professor
Teaching, Research and Management

- Dates (from – to) **1.01.2015- 31.01.2017**
 - Name and address of employer **University of West Hungary**
Károlyi Gáspár tér 4, 9700 Szombathely, Hungary
 - Type of business or sector Department of Materials Science and Engineering
 - Occupation or position held **Associate Professor.**
Teaching, Research and Management
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- Dates (from – to) **1.05.2009- 31.12.2014**
 - Name and address of employer **Ghent University**
Technologiepark 903, B-9052 Zwijnaarde, Belgium
 - Type of business or sector Department of Materials Science and Engineering
 - Occupation or position held **Research Associate. Doctor Assistant from 1.09.2010.**
Investigation of microstructural and crystallographic changes during thermo-mechanical processing in metallic materials
 - Main activities and responsibilities
 - Dates (from – to) **1.05.2006- 1.05.2009**
 - Name and address of employer **Materials Innovation Institute (M2i) and Delft University of Technology**
Mekelweg 2, 2628 CD Delft, The Netherlands
 - Type of business or sector Department of Materials Science
 - Occupation or position held **PostDoctoral Researcher**
Investigation of microstructural changes in asymmetrically rolled aluminum alloys
 - Main activities and responsibilities
 - Dates (from – to) **1.09.2003- 1.05.2006 (unpaid leave until 1.09.2013)**
 - Name and address of employer **Institute of Materials Research**, Slovak Academy of Sciences, Watsonova 47, Kosice 043 53, Slovak Republic
 - Type of business or sector Department of Microstructural Engineering of Steel
 - Occupation or position held **Scientific Researcher (Research Associate)**
Steel investigation and development of new steel types/qualities
 - Main activities and responsibilities
 - Dates (from – to) **1.09.2000-1.09.2003**
 - Name and address of employer **Institute of Materials Research**, Slovak Academy of Sciences, Watsonova 47, Kosice 043 53, Slovak Republic
 - Type of business or sector Research in the material science field
 - Occupation or position held **PhD Researcher**
Steel investigation and development of new steel types/qualities
 - Main activities and responsibilities

AWARDS AND RECOGNITIONS

-  Elsevier Reviewer Recognition – 2019. Journal Of Magnetism And Magnetic Materials.
-  Elsevier Reviewer Recognition – 2019. Applied Mathematical Modelling.
-  Reviewer Recognition – 2019. Metals.
-  Elsevier Reviewer Recognition – 2019. Journal of Materials Research and Technology.
-  Outstanding Elsevier Reviewer Recognition -2018. Journal Of Alloys And Compounds.
-  Elsevier Reviewer Recognition – 2018. Materials Science and Engineering A.
-  Elsevier Reviewer Recognition – 2018. Materials Characterization.
-  Outstanding Elsevier Reviewer Recognition - 2017. Materials Characterization.
-  Elsevier Reviewer Recognition - 2017. Journal Of Alloys And Compounds.
-  Outstanding Elsevier Reviewer Recognition - 2016. Materials Science & Engineering A.
-  Outstanding Elsevier Reviewer Recognition - 2016. Materials Characterization.
-  Elsevier Reviewer Recognition - 2016. Materials Characterization.
-  Elsevier Reviewer Recognition - 2015. International Journal of Mechanical Sciences.
-  Elsevier Reviewer Recognition - 2015. Materials Science & Engineering A.
-  Elsevier Reviewer Recognition - 2015. Journal Of Alloys And Compounds.
-  Elsevier Reviewer Recognition - 2014. Journal Of Magnetism And Magnetic Materials.
-  Hans Wilfried Wagener Endowment Prize: “ISRS 2008 Conference – Best Paper”.
-  1st prize in the competition of Young Scientists of the Slovak Academy of Sciences in 2005.
-  Award in the competition “Young Scientist of the Year 2005” in Slovak Republic.

PARTICIPATION IN RESEARCH PROJECTS

Year	Institution	Project
2017- Present	ELTE, Hungary	“Innovative processing technologies, applications of energy engineering and implementation of wide range techniques for microstructure investigation” within the Széchenyi 2020 program.
2009/15	Ghent University, Belgium	<p>“Multiscale mechanics of interface dominated Materials ” within Inter University Attraction Poles Programm.</p> <p>Formability improvement of 6xxx alloys for automotive applications.</p> <p>Engineering of 3D microstructures in metals: bridging ten length scales of functionality.</p> <p>Microstructure and texture control in severely deformed metals.</p> <p>Microstructural characteristic of high strength steel (in collaboration with M2i).</p> <p>Electrical Steel with improved magnetic characteristics by asymmetric hot and cold rolling (in collaboration with TU Delft).</p>
2006/09	Materials Innovation Institute (M2i), Delft, The Netherlands	Texture control in aluminium sheet for automotive applications by asymmetric rolling.
2004/05	Institute of Materials Research, Kosice, Slovakia	Microstructural design of columnar structures with cubic texture in isotropic electrical steels.
2003/04	Institute of Materials Research, Kosice, Slovakia	<p>Simulation of rolling process for alternative rolling regime of IF and vacuum degassed non-oriented steels.</p> <p>Theoretical and experimental verification of slab reheating regime of grain-oriented steels.</p>
2003	Institute of Materials Research, Kosice, Slovakia	<p>Segregation in electrical steels and its influence on utilitarian properties of sheets.</p> <p>Physical and metallurgical aspects of the production of non-oriented strips from degassed steel.</p>
2001/03	Institute of Materials Research, Kosice, Slovakia	Precipitation and Restoring Processes Interaction During Recrystallization Annealing.
2000/01	Institute of Materials Research, Kosice, Slovakia	Secondary Recrystallization and Microstructure Design of Electrotechnical Steels.

ACADEMIC AND RESEARCH EXPERIENCES

LECTURING AND PRACTICAL CLASSES FOR THE COURSES:

Eötvös Loránd University (2017-present):

- Materials Science;
- Materials Characterization;
- Materials Technology.

University of West Hungary, Hungary (2015-2017):

- Materials Science;
- Materials Characterization;
- Materials Science and Technology;
- Materials Technology.

Ghent University, Belgium (2009-2015):

- Fracture and deformation behaviour of metals;
- Non-ferrous metals;
- Materials Characterization;
- Physical Materials Science;
- Microstructural characteristics of materials.

REVIEWER FOR THE FOLLOWING JOURNALS:

- Acta Materialia;
- Applied Mathematical Modelling;
- Metals;
- Materials Characterization;
- Journal of Materials Science and Technology;
- Materials Science and Engineering A;
- Journal of Materials Science;
- Materials Characterization;
- Journal of Alloys and Compounds;
- Journal of Magnetism and Magnetic Materials;
- Journal of Materials Engineering and Performance;
- International Journal of Mechanical Sciences;
- Acta Metallurgica Slovaca.

MODELLING EXPERIENCES

I. FINITE ELEMENT MODELLING:

- Deform 2D;

II. CRYSTAL PLASTICITY MODELLING:

- Taylor model (MTM-TAYLOR software package);
- Visco-plastic self-consistent model (VPSC6 and VPSC7 software packages);
- Lamel and ALAMEL crystal plasticity models;
- GIA model;

III. MODELLING THE RECRYSTALLIZATION TEXTURES:

- RX model (**self-designed**);

EXPERIMENTAL EXPERIENCES

- ❑ Heat treatments of metals and alloys;
- ❑ Optical metallography;
- ❑ X-ray diffraction;
- ❑ Scanning Electron Microscopy (advanced user: Philips, Jeol);
- ❑ Mechanical testing;
- ❑ Microstructure analyses;
- ❑ Texture analyses;
- ❑ Thin film deposition.

COMPUTER SKILLS AND COMPETENCES

- ❑ **OS:** Windows, DOS;
- ❑ **Microsoft Office** (advanced user);
- ❑ **Image editors:** Paintshop Pro, IrfanView, MS Photo Editor, Adobe Photoshop;
- ❑ **Drawing and analytical programs:** MS Excel, Origin, Statmost;
- ❑ **Image Analyzers:** DIPS-5; Image Pro Plus 4.5, ImageJ.
- ❑ **Programming Language: C++.**

LANGUAGES

MOTHER TONGUES: **UKRAINIAN, SLOVAK**

OTHER LANGUAGES: **ENGLISH, HUNGARIAN, CZECH, DUTCH, RUSSIAN**

HOBBIES

- ❑ History;
- ❑ Music;
- ❑ Traveling;
- ❑ Climbing;
- ❑ Hiking;
- ❑ Cycling;
- ❑ Microelectronics and Computers;
- ❑ Cooking.

DRIVING LICENCE: AM, B.

SCIENTIFIC OUTPUTS

CITATIONS FROM THE SCOPUS DATABASE

Total nr. of citations: 777

H-index: 16

More detailed info @: <http://www.scopus.com/authid/detail.url?authorId=23969497000>

PUBLICATIONS

BOOKS AND BOOK CHAPTERS:

1. CICALÉ, S. - CESILE, C. - LUBRANO, M. - ALBINI, L. - SPERL, J. - NGUYEN MINH, T. - SIDOR, J. - PETROV, R. - KESTENS, L. - BAZZARO, G. "Electrical Steel With Improved Magnetic Characteristics By Asymmetric Hot And Cold Rolling". Luxembourg: Publications Office of the European Union (2013), 148 pages. ISBN: 978-92-79-29318-4, ISSN: 1831-9424, ISSN 1018-5593 (print) DOI: 10.2777/97481.
2. SIDOR, J. - PETROV, R. - KESTENS, L. "Texture Control in Aluminum Sheets by Conventional and Asymmetric Rolling" in **Comprehensive Materials Processing**. Editor in Chief : S Hashmi. Elsevier Science & Technology (2014). Volume 3.17, Pages: 447-498. ISBN-10: 0080965326, ISBN-13: 978-0080965321. <http://dx.doi.org/10.1016/B978-0-08-096532-1.00324-1>
<http://www.sciencedirect.com/science/article/pii/B9780080965321003241>
3. PETROV, R.H. - SIDOR, J. - KESTENS, L.A.I. "Advanced High-Strength Steels: Microstructure and Texture Evolution" Encyclopedia of Iron, Steel, and Their Alloys, Editors Rafael Colas and G.E. Totten., CRC Press, Taylor & Francis Group, New York, (2015). Pages: 70-99. Print ISBN: 9781466511040, eBook ISBN: 978146651105-7
<http://www.tandfonline.com/doi/book/10.1081/E-EISA> <http://dx.doi.org/10.1081/E-EISA-120050410>
<https://www.taylorfrancis.com/books/e/9781466511057>

JOURNAL PAPERS (Publications in journals with impact factor):

PUBLISHED

1. SIDOR, J.J. "Assessment of Flow-Line Model in Rolling Texture Simulations". **Metals**. 2019, 9(10), 1098, 21 pages (doi:10.3390/met9101098) (IF=2.259).
2. SIDOR, J.J. "Deformation texture simulation in Al alloys: continuum mechanics and crystal plasticity aspects". **Modelling and Simulation in Materials Science and Engineering**. Vol. 26, nr. 8, 2018, 085011 (DOI: <https://doi.org/10.1088/1361-651X/aae886>) (IF=1.793).
3. XIE, Q. - VAN BAEL, A.- AN, Y.G. - LIAN, J. - SIDOR, J.J. "Effects of the isotropic and anisotropic hardening within each grain on the evolution of the flow stress, the r-value and the deformation texture of tensile tests for AA6016 sheets". **Materials Science and Engineering A**. Vol. 721, 2018, pp. 154-164. (DOI: <https://doi.org/10.1016/j.msea.2018.02.053>) (IF=3.094).
4. XIE, Q. - GORTI, S.- SIDOR, J.J. - AN, Y.G. - WANG, Y.D., - LIAN, J. - LAN, H. - AN, K. "Grain orientation dependence of the residual lattice strain in a cold rolled interstitial-free steel". **Steel Research International**. (2018) (DOI: 10.1002/srin.201700408) 89(3), 2018, 1700408 (IF=1.235).
5. SHORE, D. - KESTENS, L.A.I.- SIDOR, J. - VAN HOUTTE, P. - VAN BAEL - A. "Process Parameter Influence on Texture heterogeneity in Asymmetric Rolling of Aluminium Sheet Alloys". **International Journal of Material Forming**. 11(2), 2018, pp. 297-309. (DOI: 10.1007/s12289-016-1330-7) (IF=1.978)
6. SIDOR, J. - PETROV, R. - XIE, Q.- VAN HOUTTE, P.- KESTENS L. "Evaluation of crystallographic changes and plastic strain ratio in Al alloys". **Materials Science and Technology**. 33, 2017, 667-677 (DOI: 10.1080/02670836.2016.1180742). (IF=0.995)
7. GERVASYEV, A. - CARRETERO OLALLA, V. - SIDOR, J. - SANCHEZ MOURINO, N. - KESTENS L.A.I. - PETROV, R.H. "An approach to microstructure quantification in terms of impact properties of HSLA pipeline steels". **Materials Science and Engineering A**. vol. 667, 2016, 163-170. (IF=2.647)
8. LAPEIRE, L. - SIDOR, J. - VERLEYSSEN, P. - VERBEKEN, K. - DE GRAEVE, I. - TERRYN, H. - KESTENS, L.A.I. "Texture comparison between room temperature rolled and cryogenically rolled pure copper". **Acta Materialia**. Vol. 95 (2015) 224-235. (IF=4.465)
9. SIDOR, J.J. - DECROOS, K. - PETROV, R.H. - KESTENS, L.A.I. "Evolution of recrystallization textures in particle containing Al alloys after various rolling reductions: experimental study and modeling" **International Journal of Plasticity**. Vol. 66, 2015, 119-137 (IF=5.623)
10. SIDOR, J.J. - PETROV, R.H. - KESTENS, L.A.I. "Modeling the crystallographic changes in processing of Al alloys" **Journal of Materials Science**. Vol.9, 2014, 3529-3540. (IF=2.371)
11. XIE, Q. - VAN BAEL, A. - SIDOR, J. - MOERMAN, J. - VAN HOUTTE, P. "A new cluster type model for the simulation of textures of polycrystalline metals". **Acta Materialia**. Vol.69, 2014, 175-186. (IF=4.465)
12. DECROOS, K. - SIDOR, J. - SEEFELDT, M "A new analytical approach for the velocity field in rolling processes and its application in through-thickness texture prediction" **Metallurgical and Materials Transactions A**. Vol. 45A, 2014, pp 948-961. (IF=1.730)

13. SIDOR, J.J. – KESTENS, L.A.I. “Analytical description of Rolling textures in face centered cubic metals” **Scripta Materialia**. Vol. 68, 2013, 273-276. (IF= 2.968)
14. NGUYEN-MINH T. – SIDOR, J.J. – PETROV, R.H. – KESTENS, L.A.I. “Occurrence of shear bands in rotated Goss ($\{110\}<110>$) orientations of metals with bcc crystal structure” **Scripta Materialia**. Vol. 67, 2012, pp. 935-938. (IF= 2.821)
15. SIDOR, J.J. – VERBEKEN, K – GOMES, E. – SCHNEIDER, J. – CALVILLO, P.R. - KESTENS L.A.I. “Through process texture evolution and magnetic properties of high Si non-oriented electrical steels” **Materials Characterization**. 71, 2012, pp. 49-57. (IF= 1.880).
16. SIDOR, J. - PETROV, R. - KESTENS, L.A.I. “Modeling the Crystallographic Changes in Aluminum Alloys During Recrystallization” **Acta Materialia** Vol. 59, 2011, pp. 5735–5748. (IF= 3.755)
17. SIDOR, J. - PETROV, R. - KESTENS, L.A.I. “Texture Induced Anisotropy in Asymmetrically Rolled Aluminum Alloys” **Advanced Engineering Materials** Vol. 13, 2011, pp. 1-6. (IF= 1.185)
18. SIDOR, J. - PETROV, R. - KESTENS, L.A.I. “Microstructural and Texture Changes in Severely Deformed Aluminum Alloys” **Materials Characterization** Vol. 62, 2011, pp. 228-236. (IF= 1.572)
19. SIDOR, J. - PETROV, R. - KESTENS, L.A.I. “Deformation, Recrystallization and Plastic Anisotropy of Asymmetrically Rolled Aluminum Sheets” **Materials Science and Engineering A**. Vol. 528, 2010, 413–424. (IF= 2.090)
20. BENNETT, T.A. - SIDOR, J. - PETROV, R.H. - KESTENS, L.A.I. “The effect of intermediate annealing on texture banding in aluminium alloy 6016 that exhibits roping” **Advanced Engineering Materials** Vol. 12, 2010, pp.1018-1023. (IF= 1.738)
21. SIDOR, J. - MIROUX, A. - PETROV, R. - KESTENS, L. “Microstructural and crystallographic aspects of conventional and asymmetric rolling processes” **Acta Materialia**. Vol. 56, 2008, pp. 2495–2507. (IF=3.729)
22. SIDOR, J. - MIROUX, A. - PETROV, R. - KESTENS, L. “Controlling the plastic anisotropy in asymmetrically rolled aluminium sheets” **Philosophical Magazine**, Vol. 88, Nos. 30–32, 2008, pp. 3779–3792. (IF=1.384)
23. PIRGAZI, H. – AKBARZADEH, A. - PETROV, R. - SIDOR, J. - KESTENS, L. “Texture evolution of AA3003 aluminum alloy sheet produced by accumulative roll bonding” **Materials Science and Engineering A**. Vol. 492, 2008, pp. 110–117. (IF=1.806)
24. STOYKA, V. - KOVAC, F. - SIDOR, Y. : Effect of second phase particles topology on the onset temperature of abnormal grain growth in Fe - 3%Si steels. **Metallurgy** (Metalurgija). 47(1), 2008, pp. 37-41. (IF=0.216)
25. SIDOR, Y. - KOVAC, F. – KVACKAJ, T: Grain growth and heat transport in non-oriented electrical steels. **Acta Materialia**. 55, 2007, pp.1711-1722. (IF=3.624)
26. SIDOR, Y. - DZUBINSKY, M. - KOVAC, F.: Contribution to quantification of highly inhomogeneous microstructures. **Journal of Materials Science**. 40, 2005, pp.6257-6262. (IF=0.901)
27. SIDOR, Y. - KOVAC, F.: Microstructural aspects of grain growth kinetics in nonoriented electrical steels. **Materials Characterization**. 55/1, 2005, pp.1-11. (IF=0.982)
28. SIDOR, Y. - KOVAC, F. – PETRYCHKA, V: Secondary recrystallization in non-oriented electrical steels. **Metallurgy** (Metalurgija). 44/3, 2005, pp.169-174. (IF=0.208)
29. SIDOR, Y. - KOVAC, F.: Effect of heat treatment conditions on the internal and external oxidation processes in non-oriented electrical steels. **Materials and Design**. 26/4, 2005, pp.297-304. (IF=0.785)
30. SIDOR, Y. - KOVAC, F. - DZUBINSKY, M.: Characterization of microstructures in non-oriented electrical steels utilising weighted sum of elementary data approach. **Czechoslovak Journal of Physics**. 54, 2004, pp. D105-108. (IF=0.292)
31. KOVAC, F. - DZUBINSKY, M. - SIDOR, Y.: Columnar Grain Growth in Non-Oriented Electrical Steel. **Journal of Magnetism and Magnetic Materials**, 269, 2004, pp.333-340. (IF=1.031)
32. DZUBINSKY, M. - SIDOR, Y. - KOVAC, F.: Kinetics of columnar abnormal grain growth in low-Si non-oriented electrical steel. **Material Science and Engineering A**. 385, 2004, pp.449-454. (IF=1.445)
33. DZUBINSKY, M. – PETRYCHKA, V. - SIDOR, Y. - KOVAC, F.: Microstructure design in non-oriented electrical steels. **Czechoslovak Journal of Physics**. 54, 2004, pp. D101-104. (IF=0.292)
34. SIDOR, Y. - KOVAC, F.: Quantification of Microstructure and Evaluation of Mechanical Properties in Non-Oriented Electrical Steels. **Metallurgy** (Metalurgija). 42, 2003, 3, pp.153-158. (IF=0.100)
35. SIDOR, Y. – DZUBINSKY, M. - KOVAC, F.: New Approach for the Quantification of Microstructure in Non-Oriented Electrical Steels. **Materials Characterization**, 51, 2003, pp.109-116. (IF=0.437)

JOURNALS WITHOUT IF AND CONFERENCE PROCEEDINGS

1. SIDOR, J.J., XIE, Q. "Deformation Texture Modelling by Mean-Field and Full-Field Approaches". *Advanced Materials Letters*. 2019, 10(9), 643-650 (DOI: 10.5185/amlett.2019.0030).
2. SIDOR, J.J. "Crystal plasticity and continuum mechanics-based modelling of deformation and recrystallization textures in aluminum alloys". *IOP Conf. Series: Materials Science and Engineering*. Vol. 375, 2018, 012028. doi:10.1088/1757-899X/375/1/012028.
3. LAPEIRE, L. - SIDOR, J. - LOMBARDIA, E.M. - VERBEKEN, K. - DE GRAEVE, I. - TERRY, H. - KESTENS, L.A.I. "Texture comparison between cold rolled and cryogenically rolled pure copper". *IOP Conference Series: Materials Science and Engineering*, Volume 82, Issue 1, 24 April 2015, Article number 012016.
4. VAN HOUTTE, P. - XIE, Q. - VAN BAEL, A. - SIDOR, J. - MOERMAN, J. "A new cluster-type statistical model for the prediction of deformation textures". *IOP Conference Series: Materials Science and Engineering*, Volume 82, Issue 1, 24 April 2015, Article number 012015.
5. NGUYEN-MINH, T. - SIDOR, J.J. - PETROV, R.H. - KESTENS, L.A.I. "Shear banding and its contribution to texture evolution in rotated Goss orientations of BCC structured materials". *IOP Conference Series: Materials Science and Engineering*, Volume 82, Issue 1, 24 April 2015, Article number 012023.
6. SHORE, D. - VAN BAEL - A. - SIDOR, J. - ROOSE, D. - VAN HOUTTE, P. - KESTENS, L. "Modelling the stored energy of plastic deformation for individual crystal orientations". *IOP Conference Series: Materials Science and Engineering*, Volume 82, Issue 1, 24 April 2015, Article number 012052.
7. PETROV, R. - HAJYAKBARY, F. - SAZ F.R. - SIDOR, J. - SANTOFIMIA, M.J. - SIETSMA, J. - KESTENS, L. "Microstructure and Properties of Ultrafast Annealed High Strength Steel" In *proc. of Vth International Conference on Recrystallization and Grain Growth*, May 5-10, 2013, Sydney, Australia. *Materials Science Forum* Vol. 753 (2013) pp. 554-558.
8. PETROV, R. - HAJYAKBARY, F. - SIDOR, J. - SANTOFIMIA, M.J. - SIETSMA, J. - KESTENS, L. "Ultra-fast annealing of high strength steel" In *proc. of 9th International Congress on Machines, Technologies, Materials 2012*. September 19-21, 2012, Varna, Bulgaria. Volume 3 (ISSN 1310-3946), pp. 5-8.
9. SIDOR, J.J. - PETROV, R.H. - DECROOS, K. - KESTENS, L.A.I. "Modeling the recrystallization textures in particle containing Al alloys after various rolling reductions" In *proceeding of 13th International Conference on Aluminum Alloys (ICAA13)*, June 3-7, 2012 • Pittsburgh, PA, USA. pp 299-304. (ISBN: 978-1-11845-804-4)
10. SIDOR, J. - PETROV, R. - KESTENS, L.A.I. "Recrystallization in severely deformed aluminum" In *proceeding of RX&GG conference*, July 4-9, 2010, Sheffield, UK. *Materials Science Forum* Vols. 715-716 (2012) pp 267-272.
11. PETROV, R. - SIDOR, J. - KALUBA, W. - KESTENS, L. "Grain Refinement of a cold Rolled TRIP Assisted Steel after Ultra Short Annealing" In *proceeding of RX&GG conference*, July 4-9, 2010, Sheffield, UK *Materials Science Forum* Vols. 715-716 (2012) pp 661-666.
12. KESTENS, L. - SIDOR, J. - PETROV, R. - NGUYEN MINH, T. "Texture Control in Steel and Aluminium Alloys by Rolling and Recrystallization in Non-conventional Sheet Manufacturing" In *proceeding of RX&GG conference*, July 4-9, 2010, Sheffield, UK. *Materials Science Forum* Vols. 715-716 (2012) pp 89-95.
13. SIDOR, J.J. - PETROV, R.H. - KESTENS, L.A.I. "Recrystallization textures in aluminum alloys: experimental study and modelling" In *proceeding of Int. Conference on Texture of Materials – ICOTOM-2011*, December 12-17, 2011, Mumbai, India. *Materials Science Forum* Vols. 702-703 (2012) pp. 611-614.
14. PETROV, R.H. - SIDOR, J.J. - KESTENS, L.A.I. "Texture Formation in High Strength Low Alloy Steel Reheated with Ultrafast Heating Rates" In *proceeding of Int. Conference on Texture of Materials – ICOTOM-2011*, December 12-17, 2011, Mumbai, India. *Materials Science Forum* Vols. 702-703 (2012) pp. 798-801.
15. NGUYEN MINH, T. - SIDOR, J. - PETROV, R. - KESTENS, L.A.I. "Texture Evolution During Asymmetrical Warm Rolling and Subsequent Annealing of Electrical Steel" In *proceeding of Int. Conference on Texture of Materials – ICOTOM-2011*, December 12-17, 2011, Mumbai, India. *Materials Science Forum* Vols. 702-703 (2012) pp. 758-761.
16. EYCKENS, P. - XIE, Q. - SIDOR, J.J. - DELANNAY, L. - VAN BAEL, A. - KESTENS, L. - MOERMAN, J. - VEGTER, H. - VAN HOUTTE, P. "Validation of the texture-based ALAMEL and VPSC models by measured anisotropy of plastic yielding" In *proceeding of Int. Conference on Texture of Materials – ICOTOM-2011*, December 12-17, 2011, Mumbai, India. *Materials Science Forum* Vols. 702-703 (2012) pp. 233-236.

17. SIDOR, J.J. - DECROOS, K. - PETROV, R.H. - KESTENS, L.A.I. "Particle Stimulated Nucleation in Severely Deformed Aluminum Alloys" In proceeding of Int. Conference on Processing&Manufacturing of Advanced Materials - Thermec' 2011, August 1-5, 2011, Quebec City, Canada. Materials Science Forum Vols. 706-709 (2012) pp 389-394.
18. SIDOR, J. - PETROV, R. - KESTENS, L.A.I. "Improved plastic anisotropy in asymmetrically rolled 6xxx alloy". 3rd International Conference on Texture and Anisotropy of Polycrystals (ITAP-3). Göttingen, Germany. 23-25 September, 2009. Solid State Phenomena. Vol.160 (2010) pp.165-170.
19. BENNETT, T.A. - SIDOR, J. - PETROV, R.H. - KESTENS, L.A.I. "Roping phenomena in aluminium alloy 6016: A microstructural investigation" Proceeding of International Conference on Processing & Manufacturing of Advanced Materials. Thermec' 2009. Berlin, Germany, August 25-29, 2009. Materials Science Forum. Vol. 638-642 (2010), pp. 396-400.
20. SIDOR, J. - KESTENS, L. - MIROUX, A. - PETROV, R. "Recrystallization texture development under various thermo-mechanical conditions in aluminium alloys" Light Metals. Edited by Geoff Bearne., TMS, 2009. USA, (ISBN Number 978-0-87339-731-5, ISSN Number 109-9586), pp. 1221-1224.
21. GHOSH, M.- MIROUX, A. - SIDOR, J. - KESTENS, L. "Deformation Textures And Plastic Anisotropy of AA6XXX At Warm Temperature" Aluminum Alloys: Fabrication, Characterization and Applications II. Edited by Weimin Yin, Subodh K. Das and Zhengdong Long, TMS, 2009, USA. (ISBN Number 978-0-87339-735-3), pp.101-106.
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CONFERENCE PRESENTATIONS

KEYNOTE LECTURES:

1. SIDOR, J. - PETROV, R. – XIE, Q – VAN HOUTTE, P. - KESTENS, L. "Evaluation of crystallographic changes in thermomechanical processing of Al alloys by means of crystal plasticity and continuum mechanics". AMPT 2015. Advances in Materials & Processing Technologies Conference. Madrid, Spain, December 14-17, 2015.

INVITED LECTURES:

1. SIDOR, J. "Effect of thermomechanical processing parameters on recrystallization texture and plastic strain ratio in Al alloys". 7th International Conference on Recrystallization and Grain Growth. Ghent, Belgium, August 4-9, 2019.
2. SIDOR, J. "Deformation and Recrystallization In Textured Materials: Mean And Full-Field Modelling". 26th Assembly of Advanced Materials Congress, Conference Centre, M/S Mariella, Stockholm, Sweden, June 10–13, 2019.
3. SIDOR, J. - PETROV, R.H. – DECROOS, K. KESTENS, L.A.I. "Simulation of recrystallization in textures in Al alloys after different deformations " Thermec' 2013. International conference on processing and manufacturing of advanced materials. Las Vegas, USA. December 2-6, 2013.
4. SIDOR, J. "Crystal plasticity based modelling of recrystallization textures in Al alloys". International symposium on " Textures, microstructures and plastic anisotropy. A tribute to Paul Van Houtte". Leuven, Belgium. May 13-14, 2013.
5. SIDOR J. "Modelling the Texture Evolution after Cold Rolling and Annealing of Hot Rolled Materials" MEFORM 2011, Freiberg, Germany, March 30 - April 1, 2011.
6. SIDOR, J.J. - PETROV, R.H. - KESTENS, L.A.I. "Crystal-plasticity based through-process texture modeling in aluminum alloys" 15th International Symposium on Metallography, Metallography '013, Stará Lesná, Slovak Republic, 24 – 26 April 2013.

CO-AUTHORSHIP OF INVITED LECTURES:

1. PETROV, R. – HAJYAKBARY, F. – SIDOR, J. – SANTOFIMIA, M.J. – SIETSMA, J. – KESTENS, L. "Ultra-fast annealing of high strength steel" 9th International Congress on Machines, Technologies, Materials 2012. Varna, Bulgaria, September 19-21, 2012.
2. KESTENS, L.A.I. - SIDOR, J. - PETROV, R.H. - "Texture Control in Metal Sheet Processing by Innovative Processing Strategies" International Conference on Processing&Manufacturing of Advanced Materials - Thermec' 2011, Quebec City, Canada August 1-5, 2011.
3. VAN HOUTTE P. - SIDOR J. - XIE Q. - DELANNAY L. - VAN BAEL A. - KESTENS L. "First evaluation of ALAMEL-predictions of texture-induced plastic anisotropy" Symposium Polycrystal Modelling with Experimental Integration: A Symposium Honoring Carlos Tome. TMS 2011. San Diego, California, USA. February 27 - March 3, 2011.
4. KESTENS, L. - SIDOR, J. – PETROV, R. – MINH, T. "Texture Control in Steel and Aluminium Alloys by Rolling and Recrystallization in Non-conventional Sheet Manufacturing". 4th International Conference on Recrystallization and Grain Growth. Sheffield, UK. July 4-9, 2010.
5. KESTENS, L. - SIDOR, J. "Texture control in current and future grades of steel sheet for automotive applications". International Conference on Contemporary Problems of Metal Physics. Kyiv, Ukraine. October 7-9, 2008.

CONFERENCE LECTURES (ORAL PRESENTATIONS):

1. SIDOR, J. "Modelling the Evolution Of Crystallographic Texture and plastic strain ratio in Al alloys" 9TH International Conference On Mechanical and Aerospace Engineering (ICMAE 2018). **Budapest, Hungary**. 10-13 July, 2018.
2. SIDOR, J.J. "Texture evolution in Al alloys: crystal plasticity and continuum mechanics based modelling strategies" 16TH Conference On Plastic Deformation (XVI. Képlékenyalakító Konferencia). **Miskolc, Hungary**. 7-9 February, 2018.
3. SIDOR, J.J. "Texture evolution in Al alloys: crystal plasticity and continuum mechanics based modelling strategies" International Conference on Textures of Materials, ICOTOM-18. **St. George, UTAH, USA**. 5-10 November, 2017.
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7. SIDOR, J.J. - PETROV, R.H. - KESTENS, L.A.I. "Microstructure and Texture Evolution in Severely Deformed Aluminum Alloys" International Conference on Processing&Manufacturing of Advanced Materials - Thermec' 2011, **Quebec City, Canada** August 1-5, 2011.
8. SIDOR, J. - PETROV, R. - KESTENS, L. "Recrystallization in severely deformed aluminum" 4th International Conference on Recrystallization and Grain Growth. **Sheffield, UK**. July 4-9, 2010.
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CHAIR OF SESSIONS:

1. **Section: 8C Non-Ferrous.** 7th International Conference on Recrystallization and Grain Growth. Ghent, Belgium, August 4-9, 2019.
2. **Section: Materials and Mechanical Engineering.** 9TH International Conference On Mechanical and Aerospace Engineering (ICMAE 2018). Budapest, Hungary. July 10-13, 2018.
3. **Session: ALU 3 - Aluminium based materials: processing, microstructure, properties, and recycling.** AMPT 2015. Advances in Materials & Processing Technologies Conference. Madrid, Spain, December 14-17, 2015.
4. **Section: Deformation Textures.** International Conference on Texture of Materials, ICOTOM-17. Dresden, Germany. 24-29 August, 2014.
5. **Session: Physics of plasticity and strength.** International Conference on Contemporary Problems of Metal Physics. Kyiv, Ukraine. 7–9 October, 2008.

CONFERENCE POSTER PRESENTATIONS:

1. NGUYEN MINH, T., - SIDOR J., - PETROV, R., KESTENS, L. A texture simulation of electrical steel after Asymmetrical Hot Rolling. "WMM'10 - 4th International Conference on Magnetism and Metallurgy". **Freiberg, Germany**. June 9 – 11, 2010.
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10. SIDOR, Y. - KOVAC, F.: Quantification of Microstructure and Evaluation of Mechanical Properties in Non-Oriented Electrical Steels. "5th International Symposium of Croatian Metallurgical Society -Materials and Metallurgy". **Šibenik, Croatia**. June 22-27. 2002.
11. SIDOR, Y. - KOVAC, F.: Microstructure Quantification and Prediction of Mechanical Properties of Non-Oriented Electrical Steels. Junior Euromat 2002. International Conference. **Laussane, Switzerland**. September 2-5, 2002.