



# Karel Saksli

Assoc. Prof., Ing., DrSc.



27.5.1974



Faculty of Materials, Metallurgy and Recycling, Technical university of Košice, Letná 9, 042 00 Slovak republic



(+421) 911 664654



<https://wwwnew.saske.sk/imr/>



karel.saksl@tuke.sk

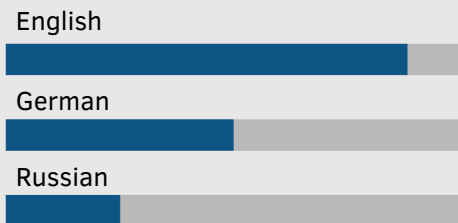
## About me

Dean of the FMMR TUKE  
Leading scientist  
Official representative of Slovakia in the European XFEL Council  
Member of scientific board

H-Index (WoS): 24  
No. of publications (WoS): 159  
No. of citations (WoS): 2061

WoS ID: ABE-5687-2020  
Scopus ID: 6602635254  
ORCID ID: 0000-0001-8133-5352

## Language skills



[Scale: 0 (basic) - 6 (expert)]

## Professional Experience

- 2021–present Faculty of Materials, Metallurgy and Recycling, TUKE Košice, Slovakia  
Dean of the faculty
- 1997–present Institute of Materials Research, SAS, Košice, Slovakia  
Head of scientific team.  
Materials research and development. Preparation and characterization of biodegradable materials, thermoelectric materials, materials for Li-ion batteries, metallic alloys for hydrogen storage and their implementation in practice.
- 2002-2007 HASYLAB at DESY Hamburg, Germany  
Postdoctoral researcher.  
Study of the structure of highly disordered materials (amorphous substances, nanocrystals), at ambient as well as at high-temperature and high-pressure conditions.
- 2001 Department of Physics, DTU Copenhagen, Denmark  
Postdoctoral researcher.  
Preparation and evaluation of amorphous, crystalline and quasi-crystalline materials in nonequilibrium conditions.

## Education and Academic Degrees

- 2021 doc. (docens, lat.) Košice  
UPJŠ
- 2010 DrSc. (Doctor Scientiarum, lat.) Košice  
TUKE
- 2000 PhD. (Philosophiae Doctor, lat.) Košice  
TUKE
- 1997 Ing. (Ingénieur, lat.) Košice  
TUKE

## Significant Professional Activities

- from 2010 official representative of Slovakia in the European XFEL Council.
- 2014-2020 official representative of Slovakia in the user consortia Serial Femto-second Crystallography and the XFEL Biology Infrastructure.
- 2009-2013 member of Scientific Advisory Committee of the European XFEL.
- 2009-present member of the Committee for Coordination of Slovak Republic Activities in ESFRI Research Infrastructures in the Field of Physical Sciences, Materials Science, and Energy Facilities
- 2012-2016 Member of the VEGA Commission No. 7 for Mechanical engineering, information and communication technologies and materials science.
- 2010 Honorable acknowledgement in the award Scientist of the Year of the Slovak Republic 2009 for a breakthrough discovery of "Saturated absorption of aluminum" using a record soft X-rays intensity radiation.
- 2009 Honorable acknowledgement in the award Scientist of the Year of the Slovak Republic 2008 for the scientific work "How Metallic Fe Controls the Composition of its Native Oxide", published in one of the world's most prestigious scientific journals dedicated to solid state physics "PHYSICAL REVIEW LETTERS".
- 2008 Honorable acknowledgement in the award Scientist of the Year of the Slovak Republic 2008 for the scientific work "Atomic structure of glassy Mg<sub>60</sub>Cu<sub>30</sub>Y<sub>10</sub> investigated with EXAFS, X-ray and neutron diffraction, and reverse Monte Carlo simulations", , published in one of the world's most prestigious scientific journals dedicated to solid state physics "PHYSICAL REVIEW B".

## Participation in Scientific Projects

### EU projects:

- 2008 – 2012 7.RP EÚ PITN-GA-2008-211536, "Macro, Micro and Nano Aspects of Machining"– *scientist in charge*.
- 2001 - 2004 5.RP EÚ G5RD-CT 2000 - 00341, "High efficiency forming technology of light weight MMC components for automotive and household application"– *member of research team*.
- 1997 - 1999 4.RP INCO-Copernicus CT- 96 0750, "Formability modelling of aluminium base PM alloys"– *member of research team*.

### APVV projects:

- 2024 – present APVV-23-0030, "Development of advanced materials for future bioresorbable implants"– *project leader*.
- 2020 – 2024 APVV-20-0205, "Research and development of new high entropy alloys for efficient hydrogen storage in energy applications"– *project leader*.
- 2020 - 2021 PP-COVID-20-0025, "Development of a highly efficient three-component composite filter for the elimination of COVID 19 virus."*member of the research team*.
- 2017 – 2020 APVV-17-0008, "Development of new biodegradable metal alloys for medical and prosthetic applications"– *project leader*.
- 2015 - 2018 APVV-15-0202, "Development of equipment for efficient compression and storage of hydrogen using new metal hydride alloys"– *member of the research team*.
- 2014 – 2017 APVV-14-0085, "Development of a new generation of power electronics connections using non-standard tin-based alloys"– *member of the research team*.

### International M-Era.Net projects:

- 2023 - present "Development and Processing of Advanced Metal Hydride Composites with Specific Microstructure Properties for Mobile Hydrogen Storage Applications"– *scientist in charge at the IMR SAS*.
- 2022 - present "Enhancement of Hydrogen Storage Properties of AlTiVCr Light Weight High Entropy Alloys (HEA) by Ti3C2 Mxene and Several Plastic Deformation"– *scientist in charge at the IMR SAS*.
- 2014 – 2017 "ExploGuard – Novel explosive welded corrosion resistant clad materials for geothermal plants"– *scientist in charge at the IMR SAS*.

### VEGA projects:

- 2022 - 2024 2/0039/22 "Research and development of High entropy alloys for efficient hydrogen storage"– *project leader*.
- 2019 - 2021 2/0013/19 "Development of new biodegradable metal alloys for medical applications"– *project leader*.
- 2016 - 2018 2/0021/16 "Research and development of metallic glasses and nanocrystalline materials"– *member of the research team*.
- 2013 - 2015 2/0128/13 "Study of structure and thermal stability of metallic glasses and nanocrystalline materials"– *member of the research team*.
- 2009 - 2012 2/0167/10 "Structural stability of nanocrystalline metallic materials prepared by progressive powder technology"– *member of the research team*.

## Training and Lecturing

### PhD. supervisor:

|              |                               |
|--------------|-------------------------------|
| 2021-present | Mgr. Marianna Hodorová        |
| 2021-present | Ing. Jakub Kubaško            |
| 2021-present | Mgr. František Mihok          |
| 2021-2024    | Mgr. Dóra Zalka               |
| 2020-2024    | Ing. Dávid Csík               |
| 2020-2024    | Ing. Wanda Miženková          |
| 2019-2023    | Ing. Dagmara Varcholová       |
| 2019-2023    | Mgr. Michal Varga             |
| 2017-2023    | RNDr. Miloš Fejerčák          |
| 2016-2020    | Mgr. Katarína Šuľová, PhD.    |
| 2016-2020    | RNDr. Michaela Šúliková, PhD. |
| 2015-2019    | RNDr. Yurii Katuna, PhD.      |
| 2015-2019    | RNDr. Maksym Lisnichuk        |
| 2012-2016    | Ing. Dušan Balga, PhD.        |
| 2011-2015    | Ing. Martin Ďurišin, PhD.     |
| 2008-2011    | Mgr. Ing. Pawel Rokici, PhD.  |
| 2008-2011    | Ing. Zdeněk Spatz, PhD.       |

### MSc. consultant / PhD. consultant:

|           |                                   |
|-----------|-----------------------------------|
| 2021-2024 | Ing. Gabriela Hricková            |
| 2007-2011 | RNDr. Štefan Michalik, PhD.       |
| 2007-2011 | RNDr. Ing. Vladimír Kolesár, PhD. |

### Lecturer:

|              |   |
|--------------|---|
| 2016-present | Structural Analysis of Materials, FMMR TUKE |
| 2016-present | Fractography, FMMR TUKE                     |
| 2016-2022    | Methods of Structural Analysis, UPJŠ        |

### Author of university textbooks:

|      |  |
|------|--|
| 2020 | Praktické cvičenia z röntgenovej difraktometrie (in slovak)    |
| 2022 | Praktické cvičenia z röntgenovej difraktometrie II (in slovak) |
| 2023 | Štruktúra kovových skiel (in slovak)                           |
| 2023 | Základy Kryštalografie úvod do symetrie kryštálov (in slovak)  |

## Publications

- [1] D. Zalka, A. Vizintin, A. Maximenko, Z. Pászti, Z. Dankházi, K. Hegedüs, L. S. Shankar, R. Kun, [K. Saksli](#), A. Fedorková Straková, and P. Jóvári. Improving lithium-sulfur battery performance using a polysaccharide binder derived from red algae. *Communications Materials*, 6(1), 2025. Cited by: 0; All Open Access, Gold Open Access.
- [2] K. Gáborová, M. Hegedüs, P. Levinský, F. Mihok, M. Matvija, K. Knížek, O. Milkovič, D. Vatraľová, J. Hejtmánek, and [K. Saksli](#). Thermoelectric characteristics of  $-ag_2se_{1+x}$  prepared via a combined rapid mechano-thermal approach. *Inorganics*, 12(12), 2024. Cited by: 0; All Open Access, Gold Open Access.
- [3] K. Nigutová, L. Oroszová, Z. Molčanová, D. Csík, K. Gáborová, J. Möllmer, M. Lange, and [K. Saksli](#). Experimental validation of hydrogen affinity as a design criterion for alloys. *Materials*, 17(24), 2024. Cited by: 0.
- [4] Z. Molčanová, [K. Saksli](#), J. Ďurišin, Š. Michalik, B. Ballóková, J. Darpentigny, and P. Jóvári. Atomic structure and devitrification of the  $Mg_{82}Ca_8Au_{10}$  metallic glass. *Journal of Non-Crystalline Solids*, 642, 2024. Cited by: 0.
- [5] B. Putz, O. Milkovič, G. Mohanty, R. Ipach, L. Pethö, J. Milkovičová, [K. Saksli](#), and J. Michler. Glass and nanocrystalline phase formation in cuzrag alloys: Insights from combinatorial thin film libraries studied by mapping synchrotron x-ray diffraction. *Materials and Design*, 244, 2024. Cited by: 0; All Open Access, Gold Open Access.
- [6] D. Varcholová, K. Kušnírová, L. Oroszová, J. Möllmer, M. Lange, K. Gáborová, B. Bul'ko, P. Demeter, and [K. Saksli](#). New-generation materials for hydrogen storage in medium-entropy alloys. *Materials*, 17(12), 2024. Cited by: 0; All Open Access, Gold Open Access.
- [7] [K. Saksli](#), M. Matvija, M. Fujda, B. Ballóková, D. Varcholová, J. Kubaško, . Möllmer, M. Lange, and M. Podobová. Zirconium-modified medium-entropy alloy (tivnb)85cr15 for hydrogen storage. *Materials*, 17(8), 2024. Cited by: 0; All Open Access, Gold Open Access.
- [8] F. Mihok, G. Hricková, V. Puchý, J. Szabó, B. Ballóková, R. Džunda, and [K. Saksli](#). Effect of multiple doping elements on polarity switching of polycrystalline snse semiconductor. *Inorganics*, 12(4), 2024. Cited by: 0; All Open Access, Gold Open Access.
- [9] G. Hrickova, F. Mihok, Z. Molcanova, B. Balloková, W. Mamrilla, R. Dzunda, P. Lukacs, A. Pietrikova, and [K. Saksli](#). The effect of ge doping on  $-ag_2s$ 's thermoelectric and mechanical properties. *Inorganics*, 12(4), 2024. Cited by: 0; All Open Access, Gold Open Access.
- [10] L. Oroszová, [K. Saksli](#), D. Csík, K. Nigutová, Z. Molčanová, and B. Ballóková. Demonstration of sensitivity of the total-electron-yield extended x-ray absorption fine structure method on plastic deformation of the surface layer. *Coatings*, 14(3), 2024. Cited by: 0; All Open Access, Gold Open Access.
- [11] L. Oroszová, D. Csík, G. Baranová, G. Bortel, R. Džunda, L. Temleitner, M. Hagarová, B. Breitung, and [K. Saksli](#). Utilizing high-capacity spinel-structured high-entropy oxide (crmnfecocu)3o4 as a graphite alternative in lithium-ion batteries. *Crystals*, 14(3), 2024. Cited by: 0; All Open Access, Gold Open Access.
- [12] V.S. Bilanych, O. Shylenko, S. Vorobiov, V.V. Bilanych, V. Rizak, V.M. Rubish, A. Feher, Z. Molcanova, [K. Saksli](#), and V. Komanicky. Charge relaxation in chalcogenide films under electron beam irradiation. *Journal of Non-Crystalline Solids*, 613, 2023. Cited by: 0.
- [13] D. Csik, G. Baranova, R. Dzunda, D. Zalka, B. Breitung, M. Hagarova, and [K. Saksli](#). High-entropy composite coating based on alcrfeconi as an anode material for li-ion batteries. *COATINGS*, 13(7), JUL 2023.
- [14] W. Mamrilla, Z. Molcanova, B. Balloková, M. Dzupon, R. Dzunda, D. Csik, S. Michalik, M. Lisnichuk, and [K. Saksli](#). The influence of manganese addition on the properties of biodegradable zinc-manganese-calcium alloys. *MATERIALS*, 16(13), JUL 2023.
- [15] Š. Michalik, Z. Molčanová, M. Šulíková, K. Kušnírová, P. Jóvári, J. Darpentigny, and [K. Saksli](#). Structure and physical properties of  $mg_{93}zn_{7}$  metallic glasses. *Materials*, 16(6), 2023. cited By 0.

- [16] K. Kušnířová, L. Oroszová, D. Varcholová, and K. Saksli. Development of materials for solid state hydrogen storage. *Solid State Phenomena*, 341:3–9, 2023. cited By 0.
- [17] M. Varga, L. Galdun, P. Diko, K. Saksli, and R. Varga. Analysis of magnetocaloric effect in parallel ni-mn-ga heusler alloy nanowires. *Journal of Alloys and Compounds*, 944, 2023. cited By 0.
- [18] B. Ballóková, M. Lázár, N. Jasminská, Z. Molčanová, Š. Michalik, T. Brestovič, J. Živčák, and K. Saksli. Development and testing of copper filters for efficient application in half-face masks. *Applied Sciences (Switzerland)*, 12(13), 2022. cited By 0.
- [19] B. Putz, O. Milkovič, G. Mohanty, R. Ipach, L. Pethö, J. Milkovičová, X. Maeder, T.E.J. Edwards, P. Schweizer, M. Coduri, K. Saksli, and J. Michler. Structural characterisation of cu-zr thin film combinatorial libraries with synchrotron radiation at the limit of crystallinity. *Materials and Design*, 218, 2022. cited By 2.
- [20] M. Varga, L. Galdun, B. Kunca, V. Vega, J. García, V.M. Prida, E.D. Barriga-Castro, C. Luna, P. Diko, K. Saksli, and R. Varga. Forc and tforc analysis of electrodeposited magnetic shape memory nanowires array. *Journal of Alloys and Compounds*, 897, 2022. cited By 0.
- [21] L. Balejčíková, K. Saksli, J. Kováč, A. Martel, V.M. Garamus, M.V. Avdeev, V.I. Petrenko, L. Almásy, and P. Kopčanský. The impact of redox, hydrolysis and dehydration chemistry on the structural and magnetic properties of magnetoferritin prepared in variable thermal conditions. *Molecules*, 26(22), 2021. cited By 0.
- [22] K. Saksli, I. Pethes, P. Jóvári, Z. Molčanová, J. Ďurišin, B. Ballóková, L. Temleitner, Š. Michalik, M. Šulíková, K. Šulřová, M. Fejerčák, D. Varcholová, and R. Motýř. Atomic structure of the mg<sub>66</sub>zn<sub>30</sub>ca<sub>4</sub> metallic glass. *Journal of Non-Crystalline Solids*, 558, 2021. cited By 0.
- [23] Š. Michalik, P. Jóvári, K. Saksli, M. Ďurišin, D. Balga, J. Darpentigny, and M. Drakopoulos. Short range order and crystallization of cu–hf metallic glasses. *Journal of Alloys and Compounds*, 853, 2021. cited By 0.
- [24] O. Shylenko, B. Bilanych, V. Bilanych, V. Latyshev, K. Saksli, Z. Molcanova, B. Ballokova, J. Durisin, P.M. Lytvyn, A. Feher, V. Rizak, and V. Komanicky. Investigation of structural changes in asxse100-x amorphous thin films after electron beam irradiation with xafs, xanes and kelvin force microscopy. *Applied Surface Science*, 530, 2020. cited By 0.
- [25] V. Vozda, T. Burian, V. Hájková, L. Juha, H. Enkisch, B. Faatz, M. Hermann, I. Jacyna, M. Jurek, B. Keitel, D. Klinger, R. Loch, E. Louis, I.A. Makhotkin, E. Plönjes, K. Saksli, F. Siewert, R. Sobierajski, S. Strobel, K. Tiedtke, S. Toleikis, G.D.E. Vries, Z. Zelinger, and J. Chalupský. Characterization of megahertz x-ray laser beams by multishot desorption imprints in pmma. *Optics Express*, 28(18):25664–25681, 2020. cited By 3.
- [26] V. Koval, Y. Shi, I. Skorvanek, G. Viola, R. Bures, K. Saksli, P. Roupčova, M. Zhang, C. Jia, and H. Yan. Cobalt-induced structural modulation in multiferroic aurivillius-phase oxides. *Journal of Materials Chemistry C*, 8(25):8466–8483, 2020. cited By 6.
- [27] M. Šulíková, Z. Molčanová, B. Ballóková, J. Ďurišin, S. Martinková, D. Varcholová, Š. Michalik, R. Tang-Kong, L. Ward, A. Mehta, K. Šulřová, M. Fejerčák, A. Lachová, R. Džunda, and K. Saksli. Development of new mg-zn-sr alloys for medical purpose. *International Journal of Nanotechnology*, 17(7-10):573–582, 2020. cited By 0.
- [28] M. Lisnichuk, Yu. Katuna, K. Saksli, M. Fejerčak, M. Šulíková, Š. Michalik, E. Čiřmár, A. Kliuikov, V. Girman, S. Vorobiov, Z. Molčanová, B. Ballokova, and P. Sovák. Magnetic characterization and thermal stability of gd<sub>50</sub>co<sub>48</sub>fe<sub>2</sub> metallic glass. *Acta Physica Polonica A*, 137(5):914–917, 2020. cited By 0.
- [29] K. Saksli, Z. Molčanová, J. Ďurišin, P. Jóvári, Š. Michalik, L. Temleitner, B. Ballóková, V. Girman, Y. Katuna, M. Šulíková, K. Šulřová, M. Fejerčák, M. Lisnichuk, A. Lachová, and L. Kapuscinský. Atomic structure of ca–mg biodegradable metallic glass. *Journal of Alloys and Compounds*, 801:651–657, 2019. cited By 0.
- [30] A. Pietrikova, T. Girasek, L. Livovsky, J. Durisin, and K. Saksli. Joints realized by sintering of pressureless ag paste. *Circuit World*, 45(1):2–8, 2019. cited By 1.
- [31] L. Balejčikova, M. Molcan, J. Kovac, M. Kubovcikova, K. Saksli, Z. Mitroova, M. Timko, and P. Kopcansky. Hyperthermic effect in magnetoferritin aqueous colloidal solution. *Journal of Molecular Liquids*, 283:39–44, 2019. cited By 8.

- [32] Z. Molčanová, B. Balloková, J. Ďurišin, K. Šulová, M. Šulíková, A. Lachová, M. Lisnichuk, M. Fejerčák, S. Martinková, Š. Michalik, and K. Saksli. Development of new biodegradable alloys for medical applications. pages 1204–1209, 2019. cited By 0.
- [33] M. Fejerčák, K. Saksli, Z. Molčanová, K. Šulová, M. Šulíková, M. Russina, V. Grzimek, and G. Guenther. Investigation of phonon suppression by nanostructuring and doping in thermoelectric half-Heusler materials. pages 1375–1380, 2019. cited By 0.
- [34] A. Pietrikova, T. Girasek, J. Durisin, and K. Saksli. Pressureless silver sintering in power application. 2018. cited By 1.
- [35] I.A. Makhotkin, I. Milov, J. Chalupský, K. Tiedtke, H. Enkisch, G. De Vries, F. Scholze, F. Siewert, J.M. Sturm, K.V. Nikolaev, R.W.E. Van De Kruijs, M.A. Smithers, H.A.G.M. Van Wolferen, E.G. Keim, E. Louis, I. Jacyna, M. Jurek, D. Klinger, J.B. Pelka, L. Juha, V. Hájková, V. Vozda, T. Sburian, K. Saksli, B. Faatz, B. Keitel, E. Plönjes, S. Schreiber, S. Toleikis, R. Loch, M. Hermann, S. Strobel, R. Donker, T. Mey, and R. Sobierajski. Damage accumulation in thin ruthenium films induced by repetitive exposure to femtosecond xuv pulses below the single-shot ablation threshold. *Journal of the Optical Society of America B: Optical Physics*, 35(11):2799–2805, 2018. cited By 5.
- [36] D.M. Fronczek, K. Saksli, R. Chulist, S. Michalik, J. Wojewoda-Budka, L. Sniezek, M. Wachowski, J. Torzewski, M. Sulikova, K. Sulova, A. Lachova, M. Fejercak, D. Daisenberger, Z. Szulc, and Z. Kania. Residual stresses distribution, correlated with bending tests, within explosively welded Ti/Gr. 2/a1050 bimetals. *Materials Characterization*, 144:461–468, 2018. cited By 8.
- [37] D.M. Fronczek, A. Wierzbicka-Miernik, K. Saksli, K. Miernik, R. Chulist, D. Kalita, Z. Szulc, and J. Wojewoda-Budka. The intermetallics growth at the interface of explosively welded a1050/Ti Gr. 2/a1050 clads in relation to the explosive material. *Archives of Civil and Mechanical Engineering*, 18(4):1679–1685, 2018. cited By 6.
- [38] I. Milov, I.A. Makhotkin, R. Sobierajski, N. Medvedev, V. Lipp, J. Chalupský, J.M. Sturm, K. Tiedtke, G. de Vries, M. Störmer, F. Siewert, R. van de Kruijs, E. Louis, I. Jacyna, M. Jurek, L. Juha, V. Hájková, V. Vozda, T. Burian, K. Saksli, B. Faatz, B. Keitel, E. Plönjes, S. Schreiber, S. Toleikis, R. Loch, M. Hermann, S. Strobel, H.-K. Nienhuys, G. Gwalt, T. Mey, H. Enkisch, and F. Bijkerk. Mechanism of single-shot damage of Ru thin films irradiated by femtosecond extreme UV free-electron laser. *Optics Express*, 26(15):19665–19685, 2018. cited By 14.
- [39] I.A. Makhotkin, R. Sobierajski, J. Chalupský, K. Tiedtke, G. De Vries, M. Störmer, F. Scholze, F. Siewert, R.W.E. Van De Kruijs, I. Milov, E. Louis, I. Jacyna, M. Jurek, D. Klinger, L. Nittler, Y. Syryanyy, L. Juha, V. Hájková, V. Vozda, T. Burian, K. Saksli, B. Faatz, B. Keitel, E. Plönjes, S. Schreiber, S. Toleikis, R. Loch, M. Hermann, S. Strobel, H.-K. Nienhuys, G. Gwalt, T. Mey, and H. Enkisch. Experimental study of EUV mirror radiation damage resistance under long-term free-electron laser exposures below the single-shot damage threshold. *Journal of Synchrotron Radiation*, 25(1):77–84, 2018. cited By 16.
- [40] N. Jasminská, T. Brestoviè, M. Lázár, K. Saksli, K. Šulova, M. Čarnogurská, and L. Bednárová. Determining the material and physical properties of alloy La<sub>0.85</sub>Ce<sub>0.15</sub>Ni<sub>5</sub> used in hydrogen storage. *Strength of Materials*, 49(4):514–520, 2017. cited By 0.
- [41] M. Obaida, L. Galdun, T. Ryba, V. Komanický, K. Saksli, M. Durisin, J. Kovac, V. Haskova, P. Szabo, Z. Vargova, and R. Varga. Spin polarization in Cu<sub>2</sub>MnSn Heusler alloy produced by melt-spinning. *Intermetallics*, 85:139–143, 2017. cited By 7.
- [42] Yu. Katuna, M. Lisnichuk, K. Saksli, V. Girman, J. Gamcová, D. Balga, M. Ďurišin, J. Kováč, and P. Sovák. The structural characterization of Ni-Ti-Zr metallic glass. *Acta Physica Polonica A*, 131(4):750–752, 2017. cited By 1.
- [43] J. Mino, M. Ipatov, J. Gamcova, K. Saksli, M. Durisin, V. Zhukova, Z. Vargova, A. Zhukov, and R. Varga. Magnetic characterization of melt-spun Co-Ni-Ga ferromagnetic superelastic alloy. *Acta Physica Polonica A*, 131(4):1075–1077, 2017. cited By 1.
- [44] P. Kanuch, T. Ryba, J. Gamcová, M. Kanuchova, M. Durisin, K. Saksli, Z. Vargova, and R. Varga. Coexistence of ferromagnetism and superconductivity in rapidly quenched Ni<sub>2</sub>NbSn Heusler alloy. *Acta Physica Polonica A*, 131(4):1057–1059, 2017. cited By 2.

- [45] E. Mazancová, K. Saksli, and P. Kučera. Prediction of formed phases in two high entropy systems. volume 2017-January, pages 918–923, 2017. cited By 0.
- [46] K. Saksli, J. Ďurišin, D. Balga, O. Milkovič, T. Brestovič, N. Jasminská, M. Ďurišin, V. Girman, J. Balko, Y. Kautana, M. Šulíková, K. Šulfová, M. Fejerčák, J. Boldi, and F. Bertram. Devitrification and hydrogen storage capacity of the eutectic ca72mg28 metallic glass. *Journal of Alloys and Compounds*, 725:916–922, 2017. cited By 2.
- [47] V. Koval, I. Skorvanek, J. Durisin, G. Viola, A. Kovalcikova, P. Svec, K. Saksli, and H. Yan. Terbium-induced phase transitions and weak ferromagnetism in multiferroic bismuth ferrite ceramics. *Journal of Materials Chemistry C*, 5(10):2669–2685, 2017. cited By 21.
- [48] M. Durisin, A. Pietrikova, J. Durisin, and K. Saksli. Structure and thermal behavior of lead-free solders prepared by rapid solidification of their melt. *Soldering and Surface Mount Technology*, 29(1):49–53, 2017. cited By 4.
- [49] A. Pietrikova, T. Girasek, J. Durisin, L. Livovsky, K. Saksli, and M. Durisin. Study of die attachment on dbc substrate. 2016. cited By 0.
- [50] R. Sobierajski, I. Jacyna, P. Dłuzewski, M.T. Klepka, D. Klinger, J.B. Peřka, T. Burian, V. Hájková, L. Juha, K. Saksli, V. Vozda, I. Makhotkin, E. Louis, B. Faatz, K. Tiedtke, S. Toilekis, H. Enkisch, M. Hermann, S. Strobel, R.A. Loch, and J. Chalupsky. Role of heat accumulation in the multi-shot damage of silicon irradiated with femtosecond xuv pulses at a 1 mhz repetition rate. *Optics Express*, 24(14):15468–15477, 2016. cited By 9.
- [51] C. Siemers, F. Brunke, K. Saksli, J. Kiese, M. Kohnke, F. Haase, M. Schlemminger, P. Eschenbacher, J. Fürste, D. Wolter, and H. Sibum. Development of advanced titanium alloys for aerospace, medical and automotive applications. volume 2016-September, 2016. cited By 2.
- [52] E. Mazancová, P. Kučera, K. Saksli, M. Ďurišin, D. Balga, and J. Szabo. Analysis of chosen weld properties of explosively bonded stainless steel with titanium. pages 783–788, 2016. cited By 0.
- [53] Z. Dufalová, E. Mazancová, K. Saksli, D. Ostroushko, M. Ďurišin, D. Balga, J. Szabo, and P. Kučera. Selected properties of two high entropy alloys. pages 700–705, 2016. cited By 1.
- [54] K. Saksli, Z. Szulc, M. Gloc, O. Milkovič, J. Ďurišin, Ł. Ciupiński, A. Arnbjörnsson, D. Ostroushko, E. Mazancová, and F. Bertram. Evaluation of residual strains and stresses using two-dimensional x-ray diffraction. pages 29–34, 2016. cited By 3.
- [55] D. Balga, M. Ďurišin, P. Zubko, O. Milkovič, J. Gamcová, V. Girman, and K. Saksli. Critical casting thickness of cu60zr30ti10 at. investigated by synchrotron radiation. pages 1301–1306, 2016. cited By 0.
- [56] Š. Michalik, J. Ďurišin, D. Balga, K. Saksli, M. Ďurišin, and M. Drakopoulos. In situ hexrd study of a ca61al39metallic glass. *Journal of Alloys and Compounds*, 687:188–196, 2016. cited By 10.
- [57] K. Giewekemeyer, C. Hackenberg, A. Aquila, R.N. Wilke, M.R. Groves, R. Jordanova, V.S. Lamzin, G. Borchers, K. Saksli, A.V. Zozulya, M. Sprung, and A.P. Mancuso. Tomography of a cryo-immobilized yeast cell using ptychographic coherent x-ray diffractive imaging. *Biophysical Journal*, 109(9):1986–1995, 2015. cited By 9.
- [58] K. Saksli, D. Ostroushko, E. Mazancová, Z. Szulc, O. Milkovič, M. Ďurišin, D. Balga, J. Ďurišin, U. Rütt, and O. Gutowski. Local structure of explosively welded titanium-stainless steel bimetal. *International Journal of Materials Research*, 106(6):621–627, 2015. cited By 6.
- [59] B.E. Tegner, L. Zhu, C. Siemers, K. Saksli, and G.J. Ackland. High temperature oxidation resistance in titanium-niobium alloys. *Journal of Alloys and Compounds*, 643:100–105, 2015. cited By 18.
- [60] E. Mazancová, K. Saksli, D. Ostroushko, and P. Kučera. Hydrogen susceptibility of explosively welded anti-corrosion steel and titanium of commercial purity. pages 779–784, 2015. cited By 0.
- [61] D. Ostroushko, K. Saksli, D. Balga, J. Szabo, M. Durisin, O. Milkovič, and P. Zubko. Microstructures and base mechanical properties of cr1-xcuxmnfeni high entropy alloys. pages 523–528, 2015. cited By 1.
- [62] D. Balga, K. Saksli, M. Ažurišin, J. Szaba, D. Ostroushko, O. Milkovič, and P. Zubko. Thermal stability of cu60zr30ti10 bulk metallic glass. pages 1271–1276, 2015. cited By 0.

- [63] K. Saksli, D. Ostroushko, E. Mazancová, Z. Szulc, O. Milkovič, M. Ažurišin, D. Balga, and J. Ažurišin. Structure of bimetal investigated by synchrotron radiation. pages 459–464, 2015. cited By 0.
- [64] J. Szaba, J. Ažurišin, K. Saksli, D. Balga, and D. Ostroushko. Thermal structure stability of cu-mgo nanocomposites. pages 1181–1185, 2015. cited By 0.
- [65] J. Mino, V. Komanicky, M. Durisin, K. Saksli, J. Kovac, and R. Varga. Structural and magnetic characterization of fe-mn-al-ni pseudo-heusler alloy. *IEEE Transactions on Magnetics*, 51(1), 2015. cited By 9.
- [66] D. Balga, D. Ostroushko, K. Saksli, E. Mazancová, and O. Milkovič. Structure and mechanical properties of explosive welded mg/al bimetal. *Archives of Metallurgy and Materials*, 59(4):1593–1597, 2014. cited By 6.
- [67] D. Ostroushko, E. Mazancová, K. Saksli, and O. Milkovič. Phase analysis of explosive welded ti-cr/ni steel in as-received state and after heat treatment using synchrotron. *Archives of Metallurgy and Materials*, 59(4):1611–1614, 2014. cited By 1.
- [68] E. Mazancová, D. Ostroushko, K. Saksli, and A. Niesłony. Joint hydrogen susceptibility of 304 ss welded with titanium. *Archives of Metallurgy and Materials*, 59(4):1605–1610, 2014. cited By 5.
- [69] J. Ďurišin, D. Balga, K. Saksli, and A. Pietriková. Atomic structure of cu-zr-ti metallic glasses subjected to high temperature annealing. *Journal of Alloys and Compounds*, 608:241–246, 2014. cited By 6.
- [70] L. Pikna, O. Milkovič, K. Saksli, M. Heželová, M. Smrčová, P. Puliš, Š. Michalik, and J. Gamcová. The structure of nano-palladium deposited on carbon-based supports. *Journal of Solid State Chemistry*, 212:197–204, 2014. cited By 12.
- [71] D. Ostroushko, E. Mazancová, K. Saksli, and O. Milkovič. Mechanical properties and phase analysis explosively welded ti-cr/ni steel in as-received state and after heat treatment. pages 569–574, 2014. cited By 0.
- [72] D. Ostroushko, E. Mazancová, K. Saksli, and R. Halgaš. Mechanical and phase analysis of bonding area explosively welded ti-cr/ni steel in as-received state and after heat treatment using synchrotron (bw-5). *Materials Science Forum*, 782:155–160, 2014. cited By 0.
- [73] O. Milkovič, K. Saksli, M. Hagarová, Š. Michalik, and J. Gamcová. Structure characterisation of electrodeposited ni-co alloy. *Materials Science Forum*, 782:603–606, 2014. cited By 1.
- [74] J. Gaudin, N. Medvedev, J. Chalupský, T. Burian, S. Dastjani-Farahani, V. Hájková, M. Harmand, H.O. Jeschke, L. Juha, M. Jurek, D. Klinger, J. Krzywinski, R.A. Loch, S. Moeller, M. Nagasono, C. Ozkan, K. Saksli, H. Sinn, R. Sobierajski, P. Sovák, S. Toleikis, K. Tiedtke, M. Toufarová, T. Tschentscher, V. Vorlíček, L. Vyšín, H. Wabnitz, and B. Ziaja. Photon energy dependence of graphitization threshold for diamond irradiated with an intense xuv fel pulse. *Physical Review B - Condensed Matter and Materials Physics*, 88(6), 2013. cited By 24.
- [75] I. Kaban, P. Jován, V. Kokotin, O. Shuleshova, B. Beuneu, K. Saksli, N. Mattern, J. Eckert, and A.L. Greer. Local atomic arrangements and their topology in ni-zr and cu-zr glassy and crystalline alloys. *Acta Materialia*, 61(7):2509–2520, 2013. cited By 66.
- [76] D. Ostroushko, E. Mazancová, and K. Saksli. Phase analysis explosive welded ti-cr/ni steel in as-received state and after heat treatment using synchrotron (bw-5). pages 616–619, 2013. cited By 1.
- [77] K. Saksli, P. Rokicki, C. Siemers, D. Ostroushko, J. Bednarčík, and U. Rütt. Local structure of metallic chips examined by x-ray microdiffraction. *Journal of Alloys and Compounds*, 581:579–584, 2013. cited By 3.
- [78] P. Novák, A. Michalcová, I. Marek, M. Mudrová, K. Saksli, J. Bednarčík, P. Zikmund, and D. Vojtěch. On the formation of intermetallics in fe-al system - an in situ xrd study. *Intermetallics*, 32:127–136, 2013. cited By 67.
- [79] Z. Spatz, T. Leemet, P. Rokicki, K. Saksli, V.-T. Kuokkala, and C. Siemers. Microstructure of heat treated ti 15v 3a1 3cr 3sn after deformation at various strain rates. volume 1, pages 454–458, 2012. cited By 1.
- [80] P. Rokicki, K. Nowag, L. Fusova, Z. Spatz, K. Saksli, and C. Siemers. Understanding of the chip formation process of ti15v3a13sn3cr alloy. volume 1, pages 714–718, 2012. cited By 0.



- [81] C. Siemers, F. Brunke, M. Stache, J. Laukart, B. Zahra, J. Rösler, P. Rokicki, and K. Saksli. Advanced titanium alloys containing micrometer-size particles. volume 2, pages 883–887, 2012. cited By 7.
- [82] M. Orolínová, J. Durišin, M. Besterce, K. Durišinová, R. Kociško, T. Kvackaj, K. Saksli, and Z. Orolínová. Microstructure and texture evolution during ecap of pure aluminium and al-4vol. *Kovove Materialy*, 50(6):433–440, 2012. cited By 2.
- [83] L. Yang, G.Q. Guo, L.Y. Chen, C.L. Huang, T. Ge, D. Chen, P.K. Liaw, K. Saksli, Y. Ren, Q.S. Zeng, B. Laqua, F.G. Chen, and J.Z. Jiang. Atomic-scale mechanisms of the glass-forming ability in metallic glasses. *Physical Review Letters*, 109(10), 2012. cited By 91.
- [84] J. Gaudin, C. Ozkan, J. Chalupský, S. Bajt, T. Burian, L. Vysín, N. Coppola, S.D. Farahani, H.N. Chapman, G. Galasso, V. Hájková, M. Harmand, L. Juha, M. Jurek, R.A. Loch, S. Möller, M. Nagasono, M. Störmer, H. Sinn, K. Saksli, R. Sobierajski, J. Schulz, P. Sovak, S. Toleikis, K. Tiedtke, T. Tschentscher, and J. Krzywinski. Investigating the interaction of x-ray free electron laser radiation with grating structure. *Optics Letters*, 37(15):3033–3035, 2012. cited By 14.
- [85] A. Michalcová, P. Novák, I. Marek, M. Mudrová, K. Saksli, and J. Bednarčík. Description of reaction mechanism during reactive sintering of al-fe-si-ni alloy. pages 1311–1315, 2012. cited By 0.
- [86] P. Novák, A. Michalcová, I. Marek, M. Mudrová, J. Bednarčík, and K. Saksli. Formation of intermetallics during reactive sintering production of fe-al alloys. pages 1295–1298, 2012. cited By 1.
- [87] R. Varga, T. Ryba, K. Saksli, V. Zhukova, J. Gonzalez, and A. Zhukov. Studies of magnetic and structural properties of ni-mn-ga heusler-type microwires. *Journal of Optoelectronics and Advanced Materials*, 14(3-4):257–261, 2012. cited By 2.
- [88] R. Varga, T. Ryba, Z. Vargova, K. Saksli, V. Zhukova, and A. Zhukov. Magnetic and structural properties of ni-mn-ga heusler-type microwires. *Scripta Materialia*, 65(8):703–706, 2011. cited By 57.
- [89] V. Hájková, L. Juha, P. Boháček, T. Burian, J. Chalupský, L. Vyšín, J. Gaudin, P.A. Heimann, S.P. Hau-Riege, M. Jurek, D. Klinger, J. Pelka, R. Sobierajski, J. Krzywinski, M. Messerschmidt, S.P. Moeller, B. Nagler, M. Rowen, W.F. Schlotter, M.L. Swiggers, J.J. Turner, S.M. Vinko, T. Whitcher, J. Wark, M. Matuchová, S. Bajt, H. Chapman, T. Dzelzainis, D. Riley, J. Andreasson, J. Hajdu, B. Iwan, N. Timneanu, K. Saksli, R. Fäustlin, A. Singer, K. Tiedtke, S. Toleikis, I. Vartaniants, and H. Wabnitz. X-ray laser-induced ablation of lead compounds. volume 8077, 2011. cited By 9.
- [90] L. Fusova, P. Rokicki, Z. Spotz, K. Saksli, and C. Siemers. Tool wear mechanisms during machining of alloy 625. *Advanced Materials Research*, 275:204–207, 2011. cited By 2.
- [91] C. Siemers, B. Zahra, D. Ksiezzyk, P. Rokicki, Z. Spotz, L. Fusova, J. Rösler, and K. Saksli. Chip formation and machinability of nickel-base superalloys. *Advanced Materials Research*, 278:460–465, 2011. cited By 10.
- [92] P. Rokicki, Z. Spotz, L. Fusova, K. Saksli, and C. Siemers. Chip formation process description based on hard to machine alloys (ti- $\beta$  and ni based). *Chemicke Listy*, 105(16 SPEC. ISSUE):s583–s585, 2011. cited By 0.
- [93] Z. Spotz, T. Leemet, P. Rokicki, L. Fusova, K. Saksli, V.-T. Kuokkala, and C. Siemers. Analysis of microstructure of annealed alloy ti-15v-3cr-3sn-3al after deformation. *Chemicke Listy*, 105(16 SPEC. ISSUE):s586–s588, 2011. cited By 0.
- [94] M. Varchola, K. Saksli, J. Durišin, and M. Besterce. Structural analysis of dispersion strengthened al-al 4c 3 material by xrd method. *High Temperature Materials and Processes*, 30(1-2):127–130, 2011. cited By 0.
- [95] C. Siemers, J. Laukart, B. Zahra, J. Rösler, Z. Spotz, and K. Saksli. Development of advanced and free-machining titanium alloys by micrometer-size particle distribution. *Materials Science Forum*, 690:262–265, 2011. cited By 6.
- [96] A. Michalcová, D. Vojtěch, P. Novák, I. Procházka, J. Čížek, J. Drahokoupil, K. Wienerová, K. Saksli, P. Rokicki, and Z. Spotz. Structure of rapidly solidified al-fe-cr-ce alloy. *Key Engineering Materials*, 465:199–202, 2011. cited By 2.
- [97] A. Michalcová, D. Vojtech, P. Novák, K. Saksli, Z. Spotz, P. Rokicki, and C. Siemers. Influence of fe and cr on properties of rapidly solidified al-cr-fe-ce alloy. pages 761–764, 2010. cited By 1.

- [98] P. Rokicki, Z. Spotz, L. Fusova, [K. Saksli](#), C. Siemers, and B. Zahra. Chip formation process of ti-15v-3al-3sn-3cr alloy. pages 844–849, 2010. cited By 3.
- [99] Z. Spotz, T. Leemet, P. Rokicki, L. Fusova, [K. Saksli](#), V.T. Kuokkala, and C. Siemers. Influence of deformation on microstructure of ti-15v-3cr-3sn-3al alloy. pages 838–843, 2010. cited By 3.
- [100] L. Fusova, P. Rokicki, Z. Spotz, [K. Saksli](#), and C. Siemers. Tool wear mechanisms in tools used for high-speed cutting of difficult-to-machine metals. pages 812–817, 2010. cited By 0.
- [101] A.J. Nelson, R.W. Lee, S. Toleikis, S. Bajt, R.R. Fäustlin, H. Chapman, J. Krzywinski, J. Chalupsky, L. Juha, V. Hajkova, B. Nagler, S.M. Vinko, T. Whitcher, J.S. Wark, T. Dzelzainis, D. Riley, [K. Saksli](#), A.R. Khorsand, R. Sobierajski, M. Jurek, J. Andreasson, N. Timneanu, J. Hadju, M. Fajardo, and T. Tschentscher. Achieving microfocus of the 13.5-nm flash beam for exploring matter under extreme conditions. pages 784–788, 2009. cited By 0.
- [102] R.W. Lee, B. Nagler, U. Zastra, R. Fäustlin, S.M. Vinko, T. Whitcher, R. Sobierajski, J. Krzywinski, L. Juha, A.J. Nelson, S. Bajt, K. Budil, R.C. Cauble, T. Bornath, T. Burian, J. Chalupsky, H. Chapman, J. Cihelka, T. Döppner, T. Dzelzainis, S. Düsterer, M. Ajardo, E. Förster, C. Fortmann, S.H. Glenzer, S. Göde, G. Gregori, V. Hajkova, P. Heimann, M. Jurek, F.Y. Khattak, A.R. Khorsand, D. Klinger, M. Kozlova, T. Laarmann, H.-J. Lee, K.-H. Meiwes-Broer, P. Mercere, W.J. Murphy, A. Przystawik, R. Redmer, H. Reinholz, D. Riley, G. Röpke, [K. Saksli](#), R. Thiele, J. Tiggesbäumker, S. Toleikis, T. Tschentscher, I. Uschmann, R.W. Falcone, R. Shepherd, J.B. Hastings, W.E. White, and J.S. Wark. Perspective for high energy density studies on x-ray fels. volume 7451, 2009. cited By 1.
- [103] R.W. Lee, B. Nagler, U. Zastra, R. Fäustlin, S. Vinko, T. Whitcher, R. Sobierajski, J. Krzywinski, L. Juha, A. Nelson, S. Bajt, T. Bornath, T. Burian, J. Chalupsky, H. Chapman, J. Cihelka, T. Döppner, T. Dzelzainis, S. Düsterer, M. Fajardo, E. Förster, C. Fortmann, S.H. Glenzer, S. Göde, G. Gregori, V. Hajkova, P. Heimann, M. Jurek, F. Khattak, A.R. Khorsand, D. Klinger, M. Kozlova, T. Laarmann, H. Lee, K. Meiwes-Broer, P. Mercere, W.J. Murphy, A. Przystawik, R. Redmer, H. Reinholz, D. Riley, G. Röpke, [K. Saksli](#), R. Thiele, J. Tiggesbäumker, S. Toleikis, T. Tschentscher, I. Uschmann, and J.S. Wark. Perspective for high energy density studies using x-ray free electron lasers. 2009. cited By 0.
- [104] A.J. Nelson, S. Toleikis, H. Chapman, S. Bajt, J. Krzywinski, J. Chalupsky, L. Juha, J. Cihelka, V. Hajkova, L. Vysin, T. Burian, M. Kozlova, R.R. Fäustlin, B. Nagler, S.M. Vinko, T. Whitcher, T. Dzelzainis, O. Renner, [K. Saksli](#), A.R. Khorsand, P.A. Heimann, R. Sobierajski, D. Klinger, M. Jurek, J. Pelka, B. Iwan, J. Andreasson, N. Timneanu, M. Fajardo, J.S. Wark, D. Riley, T. Tschentscher, J. Hajdu, and R.W. Lee. Soft x-ray free electron laser microfocus for exploring matter under extreme conditions. *Optics Express*, 17(20):18271–18278, 2009. cited By 42.
- [105] J. Cihelka, L. Juha, J. Chalupský, F.B. Rosmej, O. Renner, [K. Saksli](#), V. Hájková, L. Vyšín, E. Galtier, R. Schott, A.R. Khorsand, D. Riley, T. Dzelzainis, A.J. Nelson, R.W. Lee, P.A. Heimann, B. Nagler, S. Vinko, J. Wark, T. Whitcher, S. Toleikis, T. Tschentscher, R. Fäustlin, H. Wabnitz, S. Bajt, H. Chapman, J. Krzywinski, R. Sobierajski, D. Klinger, M. Jurek, J. Pelka, S. Hau-Riege, R.A. London, J. Kuba, N. Stojanovic, K. Sokolowski-Tinten, A.J. Gleeson, M. Störmer, J. Andreasson, J. Hajdu, B. Iwan, and N. Timneanu. Optical emission spectroscopy of various materials irradiated by soft x-ray free-electron laser. volume 7361, 2009. cited By 5.
- [106] S. Michalik, [K. Saksli](#), P. Sovák, K. Csach, and J.Z. Jiang. Crystallization of zr60fe20cu20 amorphous alloy. *Journal of Alloys and Compounds*, 478(1-2):441–446, 2009. cited By 12.
- [107] M. Oroínová, J. Ďurišin, K. Ďurišinová, M. Besterčí, and [K. Saksli](#). Structural analysis of dispersion strengthened material on aluminium base. *High Temperature Materials and Processes*, 28(1-2):73–82, 2009. cited By 2.
- [108] S. Couet, K. Schlage, [K. Saksli](#), and R. Röhlberger. Morphology of the interfaces between transition metals and their native oxides: Role of interdiffusion processes. *Physical Review B - Condensed Matter and Materials Physics*, 79(8), 2009. cited By 1.
- [109] B. Nagler, U. Zastra, R.R. Fäustlin, S.M. Vinko, T. Whitcher, A.J. Nelson, R. Sobierajski, J. Krzywinski, J. Chalupsky, E. Abreu, S. Bajt, T. Bornath, T. Burian, H. Chapman, J. Cihelka, T. Döppner, S. Düsterer, T. Dzelzainis, M. Fajardo, E. Förster, C. Fortmann, E. Galtier, S.H. Glenzer, S. Göde, G. Gregori, V. Hajkova, P. Heimann, L. Juha, M. Jurek, F.Y. Khattak, A.R. Khorsand, D. Klinger, M. Kozlova, T. Laarmann, H.J. Lee, R.W. Lee, K.-H.

Meiwes-Broer, P. Mercere, W.J. Murphy, A. Przystawik, R. Redmer, H. Reinholz, D. Riley, G. Röpke, F. Rosmej, K. Saksli, R. Schott, R. Thiele, J. Tiggesbäumker, S. Toleikis, T. Tschentscher, I. Uschmann, H.J. Vollmer, and J.S. Wark. Turning solid aluminium transparent by intense soft x-ray photoionization. *Nature Physics*, 5(9):693–696, 2009. cited By 216.

- [110] J. Bednarcik, K. Saksli, R. Nicula, S. Roth, and H. Franz. Influence of cryomilling on structure of cfezrb alloy. *Journal of Non-Crystalline Solids*, 354(47-51):5117–5119, 2008. cited By 4.
- [111] G. Pavlík, P. Sovák, V. Kolesár, K. Saksli, and J. Füzér. Structure and magnetic properties of fe<sub>73.5</sub>-x cexcu<sub>1</sub>nb<sub>3</sub> si<sub>13.5</sub> b<sub>9</sub> alloys. *Reviews on Advanced Materials Science*, 18(6):522–526, 2008. cited By 2.
- [112] K. Saksli, D. Vojtěch, and J. Ďurišin. In situ xrd studies on al-ni and al-ni-sr alloys prepared by rapid solidification. *Journal of Alloys and Compounds*, 464(1-2):95–100, 2008. cited By 6.
- [113] S. Couet, K. Schlage, K. Saksli, and R. Röhlberger. How metallic fe controls the composition of its native oxide. *Physical Review Letters*, 101(5), 2008. cited By 19.
- [114] A.B. Abrahamsen, J.-C. Grivel, N.H. Andersen, M. Herrmann, W. Häßler, B. Birajdar, O. Eibl, and K. Saksli. In-situ synchrotron x-ray study of mgb<sub>2</sub> formation when doped by sic. volume 97, 2008. cited By 0.
- [115] J.-C. Grivel, A.B. Abrahamsen, N.H. Andersen, and K. Saksli. Manufacture of (bi,pb)<sub>2</sub>sr<sub>2</sub>ca<sub>2</sub>cu<sub>3</sub>o<sub>10</sub>-based tapes with a composite sheath. volume 97, 2008. cited By 1.
- [116] P. Pouloupoulos, S. Baskoutas, L.F. Kiss, L. Bujdosó, T. Kemény, F. Wilhelm, A. Rogalev, V. Kapaklis, C. Politis, M. Angelakeris, and K. Saksli. Magnetic moments of fe and y in the feby glass forming system. *Journal of Non-Crystalline Solids*, 354(2-9):587–591, 2008. cited By 5.
- [117] M. Orolínová, J. Ďurišin, K. Ďurišinová, M. Besterci, and K. Saksli. Structural analyses on als<sub>26</sub>ni<sub>8</sub> rapidly solidified alloys. *High Temperature Materials and Processes*, 27(1):61–72, 2008. cited By 0.
- [118] R. Kanász, J. Bednarčík, K. Saksli, R. Nicula, M. Stir, and C. Lathe. In situ energy dispersive x-ray diffraction analysis of the temperature-pressure stability of co-fe-(ta,w)-b alloys. *Acta Physica Polonica A*, 113(1):79–82, 2008. cited By 1.
- [119] L. Yang, J.Z. Jiang, K. Saksli, and H. Franz. Origin of the pre-peak in zr<sub>70</sub>cu<sub>29</sub>pd<sub>1</sub> metallic glass. *Journal of Physics Condensed Matter*, 19(47), 2007. cited By 9.
- [120] L. Yang, S. Yin, X.D. Wang, Q.P. Cao, J.Z. Jiang, K. Saksli, and H. Franz. Atomic structure in zr<sub>70</sub> ni<sub>30</sub> metallic glass. *Journal of Applied Physics*, 102(8), 2007. cited By 36.
- [121] X.D. Wang, L. Yang, J.Z. Jiang, K. Saksli, H. Franz, H.-J. Fecht, Y.G. Liu, and H.S. Xian. Enhancement of plasticity in zr-based bulk metallic glasses. *Journal of Materials Research*, 22(9):2454–2459, 2007. cited By 7.
- [122] X.D. Wang, J. Bednarcik, K. Saksli, H. Franz, Q.P. Cao, and J.Z. Jiang. Tensile behavior of bulk metallic glasses by in situ x-ray diffraction. *Applied Physics Letters*, 91(8), 2007. cited By 45.
- [123] X. Ou, W. Roseker, K. Saksli, H. Franz, L. Gerward, X. Xu, G.Q. Zhang, L.N. Wang, J.F. Liu, and J.Z. Jiang. Microstructure and crystallization in cu<sub>50</sub>zr<sub>45</sub>al<sub>5</sub> metallic glass. *Journal of Alloys and Compounds*, 441(1-2):185–188, 2007. cited By 17.
- [124] P. Jóvári, K. Saksli, N. Pryds, B. Lebech, N.P. Bailey, A. Mellergård, R.G. Delaplane, and H. Franz. Atomic structure of glassy mg<sub>60</sub> cu<sub>30</sub> y<sub>10</sub> investigated with exafs, x-ray and neutron diffraction, and reverse monte carlo simulations. *Physical Review B - Condensed Matter and Materials Physics*, 76(5), 2007. cited By 31.
- [125] K. Saksli, D. Vojtěch, and H. Franz. Quasicrystal-crystal structural transformation in al-5 wt. *Journal of Materials Science*, 42(17):7198–7201, 2007. cited By 7.
- [126] B. Yang, J. Jiang, Y. Zhuang, K. Saksli, and G. Chen. Crystallization of pd<sub>40</sub>cu<sub>30</sub>ni<sub>10</sub>p<sub>20</sub> bulk metallic glass with and without pressure. *Journal of University of Science and Technology Beijing: Mineral Metallurgy Materials (Eng Ed)*, 14(4):356–360, 2007. cited By 3.

- [127] Q.K. Jiang, G.Q. Zhang, L. Yang, X.D. Wang, K. Saksli, H. Franz, R. Wunderlich, H. Fecht, and J.Z. Jiang. La-based bulk metallic glasses with critical diameter up to 30 mm. *Acta Materialia*, 55(13):4409–4418, 2007. cited By 117.
- [128] K. Saksli, J. Bednarčík, R. Nicula, E. Burkel, S. Roth, and H. Franz. The influence of short-time ball-milling on the stability of amorphous cofeb alloys. *Journal of Physics Condensed Matter*, 19(17), 2007. cited By 6.
- [129] J. Bednarčík, R. Nicula, K. Saksli, M. Stir, and E. Burkel. Microstructure evolution during thermal processing: Insight from in-situ time-resolved synchrotron radiation experiments. *Materials Science Forum*, 550:607–612, 2007. cited By 0.
- [130] A.B. Abrahamsen, J.-C. Grivel, N.H. Andersen, J. Homeyer, and K. Saksli. Kinetics of mgb<sub>2</sub> formation studied by in-situ synchrotron x-ray powder diffraction. *IEEE Transactions on Applied Superconductivity*, 17(2):2757–2760, 2007. cited By 8.
- [131] L. Medvecký, M. Kmecová, and K. Saksli. Study of pbzr<sub>0.53</sub>ti<sub>0.47</sub>o<sub>3</sub> solid solution formation by interaction of perovskite phases. *Journal of the European Ceramic Society*, 27(4):2031–2037, 2007. cited By 8.
- [132] K. Saksli, P. Jóvári, H. Franz, Q.S. Zeng, J.F. Liu, and J.Z. Jiang. Atomic structure of al<sub>89</sub>la<sub>6</sub>ni<sub>5</sub> metallic glass. *Journal of Physics Condensed Matter*, 18(32):7579–7592, 2006. cited By 49.
- [133] J. Bednarčík, E. Burkel, K. Saksli, P. Kollár, and S. Roth. Mechanically induced crystallization of an amorphous cofezrb alloy. *Journal of Applied Physics*, 100(1), 2006. cited By 22.
- [134] D. Vojtěch, K. Saksli, J. Verner, and B. Bártoová. Structural evolution of rapidly solidified al-mn and al-mn-sr alloys. *Materials Science and Engineering A*, 428(1-2):188–195, 2006. cited By 22.
- [135] L. Yang, J.H. Xia, Q. Wang, C. Dong, L.Y. Chen, X. Ou, J.F. Liu, J.Z. Jiang, K. Klementiev, K. Saksli, H. Franz, J.R. Schneider, and L. Gerward. Design of cu<sub>8</sub> zr<sub>5</sub>-based bulk metallic glasses. *Applied Physics Letters*, 88(24), 2006. cited By 70.
- [136] D. Vojtěch, J. Verner, B. Bártoová, and K. Saksli. Thermal stability of rapidly solidified alloys of aluminium with transition metals. *Materials Science Forum*, 519-521(PART 1):389–394, 2006. cited By 4.
- [137] D. Vojtech, J. Verner, B. Bártoová, and K. Saksli. Rapid solids hold hope for strong aluminium alloys. *Metal Powder Report*, 61(6):32–35, 2006. cited By 5.
- [138] Y. Wang, Y.Z. Fang, T. Kikegawa, C. Lathe, K. Saksli, H. Franz, J.R. Schneider, L. Gerward, F.M. Wu, J.F. Liu, and J.Z. Jiang. Erratum: Amorphouslike diffraction pattern in solid metallic titanium (physical review letters (2005) 95 (155501) doi: 10.1103/physrevlett.95.155501). *Physical Review Letters*, 95(16), 2005. cited By 0.
- [139] Y. Wang, Y.Z. Fang, T. Kikegawa, C. Lathe, K. Saksli, H. Franz, J.R. Schneider, L. Gerward, F.M. Wu, J.F. Liu, and J.Z. Jiang. Amorphouslike diffraction pattern in solid metallic titanium. *Physical Review Letters*, 95(15), 2005. cited By 15.
- [140] K. Saksli, P. Jóvári, H. Franz, and J.Z. Jiang. Atomic structure of al<sub>88</sub>y<sub>7</sub>fe<sub>5</sub> metallic glass. *Journal of Applied Physics*, 97(11), 2005. cited By 52.
- [141] K. Saksli, J. Ďurišín, M. Orolínová, K. Ďurišínová, and P. Lazár. Structural study on al-26 mass *Journal of Materials Science*, 40(8):1975–1978, 2005. cited By 4.
- [142] D. Vojtěch, J. Verner, B. Bártoová, and K. Saksli. Microstructure and properties of rapidly solidified al-tms alloys. volume 2, pages 213–218, 2005. cited By 0.
- [143] J. Ďurišín, K. Ďurišínová, M. Oralínová, and K. Saksli. Preparation and microstructure evolution of nanocomposite powder copper. *International Journal of Materials and Product Technology*, 23(1-2):42–68, 2005. cited By 4.
- [144] J. Ďurišín, K. Ďurišínová, M. Orolínová, and K. Saksli. Effect of the mgo particles on the nanocrystalline copper grain stability. *Materials Letters*, 58(29):3796–3801, 2004. cited By 25.
- [145] J.Z. Jiang and K. Saksli. Structural stability of pd<sub>40</sub>cu<sub>30</sub>ni<sub>10</sub>p<sub>20</sub> metallic glass in supercooled liquid region. *Materials Science and Engineering A*, 375-377(1-2 SPEC. ISS.):733–737, 2004. cited By 6.

- [146] L. Yang, Y. Chao, [K. Saksli](#), H. Franz, L.L. Sun, W.K. Wang, N.P. Jiang, X.J. Wu, and J.Z. Jiang. Short-range structure of  $\text{Zr}_{41}\text{Ti}_{14}\text{Cu}_{12.5}\text{Ni}_{10}\text{Be}_{22.5}$  glass prepared by shock wave. *Applied Physics Letters*, 84(24):4998–5000, 2004. cited By 20.
- [147] H. Bruncková, L. Medvecký, J. Briančin, and [K. Saksli](#). Influence of hydrolysis conditions of the acetate sol-gel process on the stoichiometry of pzt powders. *Ceramics International*, 30(3):453–460, 2004. cited By 32.
- [148] [K. Saksli](#), H. Franz, P. Jóvári, K. Klementiev, E. Welter, A. Ehnes, J. Saida, A. Inoue, and J.Z. Jiang. Evidence of icosahedral short-range order in  $\text{Zr}_{70}\text{Cu}_{30}$  and  $\text{Zr}_{70}\text{Cu}_{29}\text{Pd}_1$  metallic glasses. *Applied Physics Letters*, 83(19):3924–3926, 2003. cited By 108.
- [149] J.Z. Jiang, H. Kato, T. Ohsuna, J. Saida, A. Inoue, [K. Saksli](#), H. Franz, and K. Ståhl. Origin of nondetectable x-ray diffraction peaks in nanocomposite cutizr alloys. *Applied Physics Letters*, 83(16):3299–3301, 2003. cited By 40.
- [150] V. Koval, C. Alemany, J. Briančan, H. Bruncková, and [K. Saksli](#). Effect of pmn modification on structure and electrical response of  $x\text{pmn}-(1-x)\text{pzt}$  ceramic systems. *Journal of the European Ceramic Society*, 23(7):1157–1166, 2003. cited By 81.
- [151] J.Z. Jiang, B. Yang, [K. Saksli](#), H. Franz, and N. Pryds. Crystallization of  $\text{Cu}_{60}\text{Ti}_{20}\text{Zr}_{20}$  metallic glass with and without pressure. *Journal of Materials Research*, 18(4):895–898, 2003. cited By 38.
- [152] J.Z. Jiang, [K. Saksli](#), N. Nishiyama, and A. Inoue. Crystallization in  $\text{Pd}_{40}\text{Ni}_{40}\text{P}_{20}$  glass. *Journal of Applied Physics*, 92(7):3651–3656, 2002. cited By 32.
- [153] J.Z. Jiang, [K. Saksli](#), J. Saida, A. Inoue, H. Franz, K. Messel, and C. Lathe. Evidence of polymorphous amorphous-to-quasicrystalline phase transformation in  $\text{Zr}_{66.7}\text{Pd}_{33.3}$  metallic glass. *Applied Physics Letters*, 80(5):781–783, 2002. cited By 25.
- [154] J.Z. Jiang, [K. Saksli](#), H. Rasmussen, T. Watanuki, N. Ishimatsu, and O. Shimomura. High-pressure x-ray diffraction of icosahedral  $\text{Zr-Al-Ni-Cu-Ag}$  quasicrystals. *Applied Physics Letters*, 79(8):1112–1114, 2001. cited By 15.
- [155] [K. Saksli](#), L. Medvecký, and J. Ďurišin. Preparation of nanocrystalline  $\text{Cu-xMgO}$  mixture. *Journal of Materials Science*, 36(15):3675–3678, 2001. cited By 6.