

2019

Artykuły w czasopismach międzynarodowych, w tym z bazy Journal Citation Report (JCR):

1. **A. Kruk, G. Cempura** - *Application of analytical electron microscopy and FIB/SEM tomographic technique for phase analysis in as-cast Allvac 718Plus superalloy*, International Journal of Materials Research, 110(2019)3-10; DOI: 10.3 139/146-111678; JCR.
2. **S. Lech, A. Gil, G. Cempura, A. Agüero, A. Kruk, A. Czyrska-Filemonowicz** - *Microstructure of the oxide scale formed on Allvac 718Plus superalloy during oxidation at 850 °C in dry air characterised by analytical electron microscopy*, International Journal of Materials Research, 110(2019)42-48, DOI: 10.3 139/146-111675; JCR.
3. **Ł. Rakoczy, G. Cempura, A. Kruk, A. Czyrska-Filemonowicz, A. Zielińska-Lipiec** - *Morphological evolution and X-ray investigation of γ' precipitates in Ni based superalloy during rapid quenching*, International Journal of Materials Research, 110(2019)66-69; DOI: 10.3 139/146-111729; JCR.
4. **O. Kryshtal, A. Kruk, F. Mao, M. Taher, U. Jansson, A. Czyrska-Filemonowicz** - *Microstructure and phase composition of the Ag-Al film wear track: through-thickness characterization by advanced electron microscopy*, Archive of Metallurgy and Materials, 64(2019)251-256; JCR.
5. **U. Stachewicz, P. Szewczyk, A. Kruk, A.H. Barber, A. Czyrska-Filemonowicz** - *Pore shape and size dependence on cells growth into electrospun fiber scaffolds for tissue engineering: 2D and 3D analyses using SEM and FIB-SEM tomography*, Materials Science and Engineering C, Biomimetic Materials, Sensors and Systems, 95(2019)397-408, DOI: 10.1016/j.msec.2017.08.076; JCR
6. **E. Santecchia, P. Mengucci, A. Gatto, E. Bassoli, L. Denti, B. Rutkowski, A. Czyrska-Filemonowicz, G. Barucca** - *Powder bed fusion of biomedical Co-Cr-Mo and Ti-6Al-4V alloys: microstructure and mechanical properties*, Advanced Materials Research 1151(2019)3-7.
7. **P.K. Szewczyk, J. Knapczyk-Korczak, D.P. Ura, S. Metwally, A. Gruszczyński, U. Stachewicz** – *Biomimicking wetting properties of spider web from *Linothele megatheloides* with electrospun fibers*, Materials Letters, 233(2018) 211–214. DOI: 10.1016/j.matlet.2018.09.007; JCR.
8. **S. Metwally, J.E. Karbowniczek, P.K. Szewczyk, M.M. Marzec, A. Gruszczyński, A. Bernasik, U. Stachewicz** - *Single-step approach to tailor surface chemistry and potential on electrospun PCL fibers for tissue engineering application*, Advanced Materials Interfaces 6(2019)1-12, DOI: 10.1002/admi.201801211; JCR.
9. **P.K. Szewczyk, S. Metwally, J.E. Karbowniczek, M.M. Marzec, E. Stodolak-Zych, A.**

- Gruszczyński, A. Bernasik, U. Stachewicz** - *Surface potential controlled cells proliferation and collagen mineralization on electrospun polyvinylidene fluoride (PVDF) fibers scaffolds for bone regeneration*, ACS Biomaterials Science and Engineering 5(2019)591-593, DOI: 10.1021/acsbmaterials.8b01108; JCR.
10. G. Viola, F. D'Isanto, V. Koval, **G. Cempura**, H. Yand, F. Smeacetto, M. Salvo - *Orthoenstatite to forsterite phase transformation in magnesium germanate ceramics*, Ceramics International 45(2019)7878-7884; JCR.
11. D. Wrana, C. Rodenbücher, B.R. Jany, **O. Kryshnal, G. Cempura, A. Kruk**, P. Indyka, K. Szot, F. Krok - *Bottom-up process of self-formation of highly conductive titanium oxide (TiO) nanowires on reduced SrTiO₃*, Nanoscale 11(2019)89, DOI: 10.1039/c8nr04545c; JCR.
12. **A.P. Kryshnal**, A. Minenkov, S. Bogatyrenko, **A. Gruszczyński**, *Melting process and the size depression of the eutectic temperature in Ag/Ge and Ge/Ag/Ge layered films*- Journal of Alloys and Compounds 786(2019)817-825; JCR.
13. N.O. Mchedlov-Petrosyan, N.N. Kriklya, **A.P. Kryshnal**, A.A. Ishchenko, M.L. Malysheva, V.V. Tkachenko, A.Yu. Ermolenko, E. Osawa - *The interaction of the colloidal species in diluted hydrosol of nanodiamonds with inorganic and organic electrolytes*, Journal of Molecular Liquids 283(2019), s. 849–859; JCR.
14. A.A. Ishchenko, N.O. Mchedlov-Petrosyan, N.N. Kriklya, **A.P. Kryshnal**, E. Osawa, A.V. Kulinich - *Interaction of polymethine dyes with detonation nanodiamonds*, ChemPhysChem 20(2019)1028-1035; JCR.
15. **G. Cempura**, A. Gil, A. Agüero, M. Gutierrez, **A. Kruk, A. Czyrska-Filemonowicz** - *Microstructural studies of the scale on Sanicro 25 after 25 000 hours of oxidation in steam using advanced electron microscopy techniques*, Surface and Coatings Technology 377(2019)12491; on-line: 15.08.2019; DOI: 10.1016/j.surfcoat.2019.124901; JCR.
16. A. Gil, **O. Kryshnal**, T. Brylewski, **A. Czyrska-Filemonowicz** - *Characterisation of a Cr₂O₃ scale formed on chromium with implanted yttrium by advanced electron microscopy*, Surface and Coatings Technology 368(2019)232-242; JCR.
17. **S. Lech, A. Kruk**, A. Gil, **G. Cempura**, A. Agüero, **A. Czyrska-Filemonowicz** - *Three-dimensional imaging and characterization of the oxide scale formed on a polycrystalline nickel-based superalloy*, Scripta Materialia 167(2019)16-20; JCR.
18. A. Janas, B. R. Jany, K. Szajna, **A. Kryshnal, G. Cempura, A. Kruk**, F. Krok - *Nanostructure phase and interface engineering via controlled Au self-assembly on GaAs(001) surface*, Applied Surface Science 492(2019)703-710; JCR.
19. S. Bogatyrenko, **A. Kryshnal**, A. Minenkov, **A. Kruk** - *Miscibility gap narrowing on the phase diagram of Au-Ni nanoparticles*, Scripta Materialia 170(2019)57-61; JCR.

20. **S. Lech, A. Kruk, G. Cempura, A. Gruszczyński**, A. Gil, A. Agüero, A.M. Wusatowska-Sarnek, **A. Czyska-Filemonowicz** - *Influence of high temperature exposure on the microstructure of Allvac 718Plus superalloy studied by electron microscopy and tomography techniques*, Journal of Materials Engineering and Performance, available online: 20.11.2019; DOI: 10.1007/s11665-019-04474-5; JCR.
21. F. Muhaffel, M. Kaba, **G. Cempura**, B. Derin, **A. Kruk**, E. Atar, H. Cimenoglu - *Influence of alumina and zirconia incorporations on the structure and wear resistance of titania-based MAO coatings*, Surface and Coatings Technology 377(2019) art. no. 124900, pp.1-11; JCR.
22. R. Kosturek, M. Wachowski, L. Śnieżek, **A. Kruk**, J. Torzewski, K. Grzelak, J. Mierzyński - *Research on the microstructure of a Ti6Al4V-AA1050 explosive-welded bimetallic joint*, Materiali in Tehnologije = Materials and Technology 53 (2019)109-113.
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24. **P.K. Szewczyk, S. Metwally, Z.J. Krysiak, Ł. Kaniuk, J.E. Karbowniczek, U. Stachewicz** - *Enhanced osteoblasts adhesion and collagen formation on biomimetic polyvinylidene fluoride (PVDF) films for bone regeneration*, Biomedical Materials 14(2019) art. no. 065006, pp. 1–8.
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26. **S. Metwally, U. Stachewicz** - *Surface potential and charges impact on cell responses on biomaterials interfaces for medical applications* - Materials Science and Engineering. C, Materials for Biological Applications 104(2019), art. no. 109883, pp. 1–27; JCR.
27. T. Busolo, **D. P. Ura**, S. K. Kim, M. M. Marzec, A. Bernasik, **U. Stachewicz**, S. Kar-Narayan - *Surface potential tailoring of PMMA fibers by electrospinning for enhanced triboelectric performance*, Nano Energy 57(2019)500–506.
28. **S. Metwally**, S. Martínez Comesaña, M. Zarzyka, **P.K. Szewczyk, J.E. Karbowniczek, U. Stachewicz** - *Thermal insulation design bioinspired by microstructure study of penguin feather and polar bear hair*, Acta Biomaterialia 91(2019)270–283; JCR.
29. M. Marczak, F. Wierońska, P. Burmistrz, A. Strugała, K. Kogut, **S. Lech** – *Investigation of subbituminous coal and lignite combustion processes in terms of mercury and arsenic removal*, Fuel 251 (2019)572-579; JCR.
30. P. Bała, K. Górecki, W. Bednarczyk, M. Wątroba, **S. Lech**, J. Kawałko – *Effect of high-*

temperature exposure on the microstructure and mechanical properties of the Al5Ti5Co35Ni35Fe20 high-entropy alloy, Journal of Materials Research and Technology (2019); on-line: 23.11.2019; DOI:10.1016/j.jmrt.2019.10.084; JCR.

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32. E. Rudnik, **J. Knapczyk-Korczak** – *Preliminary investigations on hydrometallurgical treatment of spent Li-ion batteries*, Metallurgical Research & Technology 116(2019)1-6.
33. V. Petkov, R. Valov, M. Witkowska, M. Madej, **G. Cempura**, M. Sułowski - *Sintered steels coated with a chromium layer doped with diamond nanoparticles*, Archive of Metallurgy and Materials 64(2019)1633-1638; JCR.
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35. M. Solecka, A. Radziszewska, **B. Rutkowski** - *New insight on study of Ni-base alloy clad layer after oxidation at 650 °C*, Corrosion Science 149(2019)244-248; JCR.
36. B.R. Jany, A. Janas, W. Piskorz, K. Szajna, **O. Kryshstal**, **G. Cempura**, P. Indyka, **A. Kruk**, **A. Czyska-Filemonowicz**, F. Krok - *Chemically driven growth of Au-rich nanostructures on AIII-BV semiconductor surfaces"*, submitted to RSC Nanoscale; JCR.
38. **A. Kruk**, **S. Lech**, A. Gil, **G. Cempura**, A. Agüero, A.M. Wusatowska-Sarnek, **A. Czyska-Filemonowicz** - *Three-dimensional characterization of an oxide scale on ATI 718Plus superalloy*, submitted to do Corrosion Science; JCR.

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1. **J. Karbowniczek**, **P. Szewczyk**, **S. Metwally**, **A. Gruszczyński**, **U. Stachewicz** - *2D and 3D electron microscopy imaging in tissue engineering*, Proc. "Microscopy characterization of organic-inorganic interfaces", 7-8.03.2019, Berlin, Germany, p. 82.
2. B.R. Jany, A. Janas, W. Piskorz, K. Szajna, **A. Kryshstal**, **G. Cempura**, P. Indyka, **A. Kruk**, **A. Czyska-Filemonowicz**, F. Krok - *Characterization of Gold rich Nanostructures on AIII-BV Semiconductor Surfaces by Electron Microscopy and Machine Learning Techniques*, MC2019: Microscopy Conference, 1-5.09.2019, Berlin, Germany, pp. 303-304.
3. B.R. Jany, A. Janas, W. Piskorz, K. Szajna, **A. Kryshstal**, **G. Cempura**, P. Indyka, **A. Kruk**, **A. Czyska-Filemonowicz**, F. Krok - *Chemical and structural imaging of gold-rich nanostructures on AIII-BV semiconductors by electron microscopy and machine*

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5. **O. Dziuba, A.M. Wusatowska-Sarnek, A. Kruk** - *Influence of isothermal holding on the microstructure and mechanical properties of EBW dissimilar Inconel 718/Allvac® 718Plus welded joint*, *ibid*, pp. 49-50.
6. **J. Knapczyk-Korczak, D.P. Ura, J.P. Chiveron, U. Stachewicz** - *Collecting water in electrospun polymer fiber composites*, *ibid*, pp. 72–73.
7. **W. Osuch, G. Michta, R. Błoniarczyk, I. Suliga** - *Evolution of the dislocation structure of iron meteorite*, *ibid*, p. 327.
8. **D. Wrana, C. Rodenbücher, K. Cieřlik, B.R. Jany, P. Indyka, O. Kryshnal, G. Cempura, A. Kruk, K. Szot, F. Krok** - *Redox processes in transition metal oxides – from the control of nanoscale properties to the formation of metal/semiconductor heterostructures*; XLV zjazd fizyków polskich; 13–18.09.2019, Kraków, Uniwersytet Jagielloński. Oddział Krakowski Polskiego Towarzystwa Fizycznego, p. 142.
9. **Z. Krysiak, U. Stachewicz** - *Biocompatibility and cell culture study on electrospun PVB patches for skin treatment*; Proceedings of the ESB 2019 annual conference of the European Society for Biomaterials, 9–13.09.2019, Dresden, Germany, pp. 1197–1198.
10. **D. P. Ura, A. Gradyś, A. Zaszczynska, P. Sajkiewicz, U. Stachewicz** - *Controlling of mechanical properties of electrospun PMMA fibers via voltage polarity*; Proceedings of II European summer school on Materials science, 28-30.08.2019, Dresden, Germany, M. Bieda (ed.), Institute of Metallurgy and Materials Science of the Polish Academy of Sciences, 2019. pp. 64–67.
11. **A.A. Minenkov, S.I. Bogatyrenko, A.P. Kryshnal** - *Contact melting in Ag/Ge layered nanofilms: critical thickness and onset temperature*; NAP-2019, Proceedings of the 2019 IEEE 9th international conference on Nanomaterials: Applications & Properties, 15-20.09.2019, Odesa, Ukraine, Pt. 1.
12. **T. Brylewski, M. Marczyński, S. Molin, J. Wyrwa, O. Kryshnal, A. Gil** - *Effect of gadolinium segregation to grain boundaries in Cr₂O₃ scale on the physicochemical properties of Crofer 22 APU ferritic steel with a spinel coating*; 12th conference of the Polish Ceramic Society and 3rd Polish–Slovak–Chinese seminar on Ceramics: book of abstracts, Zakopane,

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13. **A. P. Kryshstal**, S.I. Bogatyrenko - *In situ aberration-corrected STEM studies of metal-induced crystallization of amorphous semiconductor films*; NANO-2019: International research and practice conference on Nanotechnology and Nanomaterials, 27–30.08. 2019, Lviv, Ukraine, p. 373.

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18. F. Krok, D. Wrana, K. Cieřlik, B. R. Jany, **O. Kryshstal**, **G. Cempura**, **A. Kruk**, K. Szot - *The process of self-assembly of titanium oxide nanostructures (TiO) on surfaces of thermally reduced crystals SrTiO₃(110)*; NANO 2019: IX krajowa konferencja nanotechnologii, 1-3.07.2019, Wrocław, p. 57.

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