

# 2010

## Scientific journals indexed in Current Contents

1. **CENIGA, L.**: Thermal stresses in two- and three-component anisotropic materials. *Acta Mechanica Sinica*, 26, 2010, s.695-709
2. **CENIGA, L.**: Thermal-Stress Induced Phenomena in Two-Component Material. Part II. *Acta Mechanica Sinica*, 26, 2010, s.101-106
3. KOLLÁR, P. - HEGEDÜS, L. - FÜZER, J. - **BUREŠ, R.** - **FÁBEROVÁ, M.**: AC magnetic properties of vitroperm based composite materials. *Acta Physica Polonica A*, 118, 2010, s.787-789
4. **PETRYSHYNETS, I.** - **KOVÁČ, F.** - **STOYKA, V.** - BOŘUTA, J.: Influence of microstructure evolution on the coercive forces in low silicon non-oriented steels. *Acta Physica Polonica A*, 118, 2010, s.1013-1014
5. BALÁŽ, P. - TIMKO, M. - KOVÁČ, J. - BUJŇÁKOVÁ, Z. - **ĎURIŠIN, J.** - MYNDYK, M. - ŠEPELÁK, V.: Magnetic properties and sorption activity of mechanically activated magnetite  $\text{Fe}_3\text{O}_4$ . *Acta Physica Polonica A*, 118, 2010, s.1005-1007
6. **STOYKA, V.** - **KOVÁČ, F.** - **PETRYSHYNETS, I.** - SCHINDLER, I.: Tracking the evolution of abnormal grain growth in grain-oriented electrical steels by coercivity measurements. *Acta Physica Polonica A*, 118, 2010, s.1015-1017
7. KOLLÁR, P. - BIRČÁKOVÁ, Z. - FÜZER, J. - FÜZEROVÁ, J. - **BUREŠ, R.** - **FÁBEROVÁ, M.**: Wide frequency range AC magnetic properties of Fe-based composite materials. *Acta Physica Polonica A*, 118, 2010, s.759-761
8. HRYHA, E. - GIERL, C. - NYBORG, L. - DANNINGER, H. - **DUDROVÁ, E.**: Surface composition of the steel powders pre-alloyed with manganese. *Applied Surface Science*, 256, 2010, s.3946-3961
9. LOFAJ, F. - NĚMEČEK, J. - BLÁHOVÁ, O.: A comparative study of nanoindentation measurements on thin coatings. *Chemické listy*, 104, 2010, s.s271-s274
10. GAVENDOVÁ, P. - ZUBKO, P. - PEŠEK, L. - BLÁHOVÁ, O.: Determining the true stress - strain relationship by depth sensing indentation on two structural materials. *Chemické listy*, 104, 2010, s.s310-s313
11. MOLNÁROVÁ, M. - KVAČKAJ, T. - KOCISKO, R. - NÉMETHOVÁ, L.: Evaluation of carbon content in austenite by indirect method. *Chemické listy*, 104, 2010, s.s353-s355
12. KOCISKO, R. - ZUBKO, P. - **ĎURIŠIN, J.** - **MOLNÁROVÁ, M.** - KOVÁČOVÁ, A. - KVAČKAJ, M. - BACSÓ, J.: The mechanical properties changes of OFHC copper after ECAP processing. *Chemické listy*, 104, 2010, s.s330-s333
13. KOLLÁR, P. - FÜZER, J. - **BUREŠ, R.** - **FÁBEROVÁ, M.**: AC magnetic properties of Fe-based composite materials. *IEEE Transactions on Magnetics*, 46, 2010, no. 2, s.467-470
14. STUPAKOV, O. - PEREVERTOV, O. - **STOYKA, V.** - WOOD, R.: Correlation between hysteresis and Barkhausen noise parameters of electrical steels. *IEEE Transactions on Magnetics*, 46, 2010, no. 2, s.517-520
15. PALÁ, J. - BYDŽOVSKÝ, J. - **STOYKA, V.** - **KOVÁČ, F.**: Stabilization of the Barkhausen noise parameters. *IEEE Transactions on Magnetics*, 46, 2010, no. 2, s.207-209
16. **CENIGA, L.**: Analytical model of thermal stresses in two- and three-component materials II. *International Journal of Engineering Sciences*, 48, 2010, s.1824-1841
17. **CENIGA, L.**: Analytical model of thermal stresses in two- and three-component materials. *International Journal of Engineering Sciences*, 48, 2010, s.290-311
18. SELECKÁ, M. - ŠALAK, A.: Industrial sintering of hybrid low-carbon 3Cr-0,5 Mo-xMn steels. *International Journal of Powder Metallurgy*, 46, 2010, s.29-42
19. KLADEKOVÁ, D. - ORIŇÁKOVÁ, R. - KRAJNÍKOVÁ, A. - **KUPKOVÁ, M.** - **KABÁTOVÁ, M.** - MARKUŠOVÁ, K.: Preparation and compaction behaviour of poly(methylmethacrylate) coated iron microparticles. *Journal of Materials Science and Technology*, 26, 2010, s.454-460
20. DOBEŠ, F. - MILIČKA, K. - **BESTERCI, M.** - KVAČKAJ, T.: The influence of ECAP on the small punch creep of Al-4 vol%  $\text{Al}_4\text{C}_3$  composite. *Journal of Materials Science*, 45, 2010, s.5171-5176
21. **BESTERCI, M.** - VELGOSOVÁ, O. - IVAN, J. - KVAČKAJ, T.: The Mechanism of the Failure of the Dispersion-Strengthened Cu-Al<sub>2</sub>O<sub>3</sub> Nanosystem. *Journal of Materials Science*, 45, 2010, s.4073-4077
22. HEGEDUSOVÁ, L. - KAŠIAROVÁ, M. - CSEHOVÁ, E. - DUSZA, J.: Effect of the specimen size on strength of  $\text{Si}_3\text{N}_4$ +SiC composite. *Journal of the European Ceramic Society*, 30, 2010, s.1059-1065
23. LOJANOVÁ, Š. - TATARKO, P. - CHLUP, Z. - HNATKO, M. - **DUSZA, J.** - LENČEŠ, Z. - ŠAJGALÍK, P.: Rare-earth element doped  $\text{Si}_3\text{N}_4$ /SiC micro/nano-composites-RT and HT mechanical properties. *Journal of the European Ceramic Society*, 30, 2010, s.1931-1944
24. **STOYKA, V.** - **KOVÁČ, F.** - STUPAKOV, O. - **PETRYSHYNETS, I.**: Texture evolution in Fe-3% Si steel treated under unconventional annealing conditions. *Materials Characterization*, 61, 2010, s.1066-1073

25. HEGEDUSOVÁ, L. - KOVALČÍKOVÁ, A. - CENIGA, L. - DUSZA, J.: Contact strength and crack formation in monolithic ceramic materials. Materials Science and Engineering A, 527, 2010, s.1179-1184
26. TATARKO, P. - LOJANOVÁ, Š. - DUSZA, J. - ŠAJGALÍK, P.: Influence of various rare-earth oxide additives on microstructure and mechanical properties of silicon nitride based nanocomposites. Materials Science and Engineering A, 527, 2010, s.4771-4778
27. CENIGA, L.: Thermal Stresses in Isotropic-Triaxial-Anisotropic Particle-Matrix System. Meccanica, 45, 2010, s.73-77
28. HRYHA, E. - DUDROVÁ, E. - NYBORG, L.: Critical aspects of alloying of sintered steels with manganese. Metallurgical and Materials Transactions A, 41, 2010, s.2880-2897
29. ŠALAK, A. - SELECKÁ, M.: Adverse effect of high purity atmosphere on sintering of manganese steels. Powder Metallurgy, 53, 2010, s.285-294
30. DUDROVÁ, E. - KABÁTOVÁ, M. - MITCHELL, S.C. - BIDULSKÝ, R. - WRONSKI, A.S.: Microstructure Evolution in Fe-Mn-C during Step Sintering. Powder Metallurgy, 53, 2010, s.244-250
31. HVIZDOŠ, P. - PUCHÝ, V. - DUSZOVÁ, A. - DUSZA, J.: Tribological behavior of carbon nanofiber-zirconia composite. Scripta Materialia, 63, 2010, s.254-257
32. ORIŇÁKOVÁ, R. - KUPKOVÁ, M. - ORIŇÁK, A. - FEDORKOVÁ, A. - DUDROVÁ, E.: Synthesis of polypyrrole coatings on surface of iron particles. Surface and Interface Analysis, 42, 2010, s.1706-1711
33. BRUNCKOVÁ, H. - KABÁTOVÁ, M. - DUDROVÁ, E.: The effect of iron phosphate, alumina and silica coatings on the morphology of carbonyl iron particles. Surface and Interface Analysis, 42, 2010, s.13-20
34. HVIZDOŠ, P. - MESTRA, A. - ANGLADA, M.: Effect of heat treatment on wear damage mechanisms in 3Y-TZP ceramics. Wear, 269, 2010, s.26-30
35. TATARKO, P. - KAŠIAROVÁ, M. - DUSZA, J. - MORGIEL, J. - ŠAJGALÍK, P. - HVIZDOŠ, P.: Wear resistance of hot-pressed Si<sub>3</sub>N<sub>4</sub>/SiC micro/nanocomposites sintered with rare-earth oxide additives. Wear, 269, 2010, s.867-874
36. PUCHÝ, V. - TATARKO, P. - DUSZA, J. - MORGIEL, J. - BASTL, Z. - MIHÁLY, J.: Characterization of carbon nanofibers by SEM, TEM, ESCA and Raman spectroscopy. Kovové materiály, 48, 2010, s.379-385
37. KOVAL, V. - BHARADWAJA, S. - TROLIER-MCKINSTRY, S.: Lead zirconate titanate films prepared by liquid source misted chemical deposition. Kovové materiály, 48, 2010, s.361-365

## PhD Thesis

1. DŽUPON, M.: Mechanické vlastnosti multifázových nízkolegovaných ocelí. Dizertačná práca. Košice : ÚMV SAV 2010, 128 s.
2. MIŠKOVÁ, A.: Kompaktizácia a vlastnosti práškových mikrokompozitných materiálov. Písomná práca k dizertačnej skúške. Košice : ÚMV SAV 2010, 99 s.
3. FERDINANDY, M.: Vplyv mechanizmu vzniku vrstiev nanášaných PVD metódami na ich štruktúru a vlastnosti. Písomná práca k dizertačnej skúške. Košice : ÚMV SAV 2010, 87 s.
4. ROKICKI, P.: Analysis of high-speed machining titanium alloys. Písomná práca k dizertačnej skúške. Košice : ÚMV SAV 2010, 65 s.
5. SPOTZ, Z.: Complex study of microstructure of difficult-to-machine alloys. Písomná práca k dizertačnej skúške. Košice : UMV SAV 2010, 73 s.
6. CSEHOVÁ, E.: Mechanical properties of Al<sub>2</sub>O<sub>3</sub>+SiC nanocomposites. Písomná práca k dizertačnej skúške. Košice : ÚMV SAV 2010, 86 s.
7. PUCHÝ, V.: Microstructure and properties of ceramic nanocomposites reinforced with carbon nanofibers and nanotubes. Písomná práca k dizertačnej skúške. Košice : ÚMV SAV 2010, 98 s.

## Patents

1. MEDVECKÝ, L.: Spôsob prípravy kompozitných materiálov. Podaný patent č. PP 00106-2010. Bratislava : Úrad priemyselného vlastníctva SR 2010
2. KOTTFER, D. - FERDINANDY, M. - DUSZA, J. - LOFAJ, F.: Zariadenie pre vytváranie ochranných vrstiev na vnútorných plochách rotačných telies odparovaním látky elektrickým lúčom. Podaný patent č. PP 00151-2010. Banská Bystrica : ÚPV SR 2010
3. MEDVECKÝ, L. - ŠTULAJTEROVÁ, R.: Spôsob prípravy pôrovitých kalcium fosfátových materiálov a kompozitov. Patent č. 287378. Bratislava : Úrad priemyselného vlastníctva SR 2010
4. KOVÁČ, F. - STOYKA, V.: Spôsob výroby zrnovo orientovaných elektrotechnických ocelí. Patent č. 287440. Bratislava : Úrad priemyselného vlastníctva SR 2010

## Reviewed proceedings

1. MEDVECKÝ, L. - BRUNCKOVÁ, H. - KAŠIAROVÁ, M. - MIHALIK, J.: Kompozitné systémy s kalcium fosfátovou fázou pre lekárske aplikácie. In: Biomedicínske postupy. Vedecká pracovná konferencia s medzinárodnou účasťou. Košice, 2.12.2010. Ed. A. Jenča. Košice : LF UPJŠ 2010, s.48-54
2. VLASÁK, T. - HAKL, J. - NOVÁK, V. - VÝROSTKOVÁ, A.: Creep properties and microstructure of the new wrought austenitic steel. In: 9th Liege Conference: Materials for Advanced Power Engineering 2010. Liege, 27.-29.9.2010. Ed. J. Lecomte-Beckers a kol.. B.V. 2010, s.372-381
3. TATARCO, P. - DUSZA, J. - ŠAJGALÍK, P.: Fracture characteristics and damage mechanisms in rare-earth doped  $\text{Si}_3\text{N}_4$  based ceramics. In: Design a porušování materiálů. Křehký lom 2010. Brno, 4.11.2010. Ed. I. Dlouhý. Brno : Ústav fyziky materiálů AV ČR 2010, s.171-180
4. ROKICKI, P. - SPOTZ, Z. - FUSOVÁ, L. - SAKSL, K. - SIEMERS, C. - ZAHRA, B.: Chip formation process of Ti-15V-3Al-3Sn-3Cr alloy. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. Conference proceedings. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger 2010, s.844-849
5. SPOTZ, Z. - LEEMET, T. - ROKICKI, P. - FUSOVÁ, L. - SAKSL, K. - KUOKKALA, V. - SIEMERS, C.: Influence of deformation on microstructure of Ti-15V-3Cr-3Sn-3Al alloy. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. Conference proceedings. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger 2010, s.838-843
6. VÝROSTKOVÁ, A. - FALAT, L. - KEPIČ, J. - BRZIAK, P. - PECHA, J.: Microstructure and fracture of 9%Cr-Mo-Co-B steel (CB2) weldment after isothermal ageing. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. Conference proceedings. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger 2010, s.409-414
7. BENÁK, M. - TURŇA, M. - OŽVOLD, M. - NESVADBA, P. - LOKAJ, J. - ČAPLOVIČ, L. - KOVÁČ, F. - STOYKA, V.: Study of Al-austenitic steel boundary formed by explosion welding. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. Conference proceedings. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger 2010, s.235-240
8. FUSOVÁ, L. - ROKICKI, P. - SPOTZ, Z. - SAKSL, K. - SIEMERS, C.: Tool wear mechanisms in tools used for high-speed cutting of difficult-to-machine metals. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. Conference proceedings. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger 2010, s.812-817
9. MEDVECKÝ, L.: Nanocomposite polyhydroxybutyrate-chitosan-hydroxyapatite systems. In: Modern polymeric materials for environmental applications. 4th international seminar. COST MP0701 workshop. Vol. 4, iss.1. Krakow, 1.-3.12.2010. Ed. K. Pielichowski. Cracow : Cracow University of Technology 2010, s.233-238
10. SHYKULA, P. - DUDROVÁ, E. - FRYKHOLM, R. - BENGTSSON, S.: Applicability of theoretical software to design new type of alloys. Vol. 5. In: PM 2010. Powder Metallurgy World Congress and Exhibition. Florencia, 10.-14.10.2010. Shrewsbury : EPMA 2010, s.33-40
11. MIŠKOVÁ, A. - DUDROVÁ, E. - BRUNCKOVÁ, H. - FÁBEROVÁ, M. - BUREŠ, R.: Compressibility of Fe/SiO<sub>2</sub> coated composite powders. Vol. 1. In: PM 2010. Powder Metallurgy World Congress and Exhibition. Florencia, 10.-14.10.2010. Shrewsbury : EPMA 2010, s.471-476
12. BUREŠ, R. - FÁBEROVÁ, M.: Evaluation of compressibility of micro-composite systems. Vol. 1. In: PM 2010. Powder Metallurgy World Congress and Exhibition. Florencia, 10.-14.10.2010. Shrewsbury : EPMA 2010, s.513-518
13. DUDROVÁ, E. - ACTIS-GRANDE, M. - ROSSO, M. - KABÁTOVÁ, M. - HRYHA, E. - BIDULSKÝ, R.: Improvement of strength properties of Fe-Cr-Mo-[Cu-Ni]-C sintered steels by sinter-hardening. Vol. 3. In: PM 2010. Powder Metallurgy World Congress and Exhibition. Florencia, 10.-14.10.2010. Shrewsbury : EPMA 2010, s.79-86
14. SHYKULA, P. - ORO, R. - DUDROVÁ, E. - CAMPUS, M. - TORRALBA, J. - BENGTSSON, S.: Microstructure and fracture behavior of high strength hybrid powder systems based on Fe-[Mo]-C + Cr-Ni-Mo-Mn master alloy. Vol. 3. In: PM 2010. Powder Metallurgy World Congress and Exhibition. Florencia, 10.-14.10.2010. Shrewsbury : EPMA 2010, s.179-186
15. DLAPKA, M. - GIERL, C. - DANNINGER, H. - BENGTSSON, S. - DUDROVÁ, E.: Nitrogen pickup during sintering and subsequent cooling of chromium alloyed PM steels. Vol. 2. In: PM 2010. Powder Metallurgy World Congress and Exhibition. Florencia, 10.-14.10.2010. Shrewsbury : EPMA 2010, s.13-20
16. BUREŠ, R. - FÁBEROVÁ, M. - KOLLÁR, P. - FÚZER, J.: Preparation and properties of Fe-based composite materials. Vol. 5. In: PM 2010. Powder Metallurgy World Congress and Exhibition. Florencia, 10.-14.10.2010. Shrewsbury : EPMA 2010, s.253-258

17. HRYHA, E. - NYBORG, L. - **DUDROVÁ, E.** - BENGTSSON, S.: Sintered steels alloyed with manganese: effect of alloying mode. Vol. 3. In: PM 2010. Powder Metallurgy World Congress and Exhibition. Florencia, 10.-14.10.2010. Shrewsbury : EPMA 2010, s.87-94
18. **STOYKA, V.** - **KOVÁČ, F.** - **PETRYSHYNETS, I.**: Application of unconventional dynamical heat treatment conditions to grain-oriented electrical steels. In: WMM'10. 4th International Conference on Magnetism and Metallurgy. Freiberg, 9.-11.6.2010. Ed. J. Schneider a kol.. Gent : Gent University 2010, s.375-379
19. **MOLNÁROVÁ, M.** - **KVAČKAI, T.** - **KOCISKO, R.** - **NÉMETHOVÁ, L.** - **SAS, J.**: Austempering influence on mechanical properties of C-Mn-Si steel. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.195-199
20. **HEGEDUSOVÁ, L.** - **CENIGA, L.** - **DUSZA, J.**: Bending and contact strength of monolithic ceramic materials. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.546-551
21. **ANDREJOVSKÁ, J.** - **KAŠIAROVÁ, M.** - **DUSZA, J.**: Comparison of depth sensing indentation method and standard impulse excitation technique for the Young's modulus measurement of  $\text{Si}_3\text{N}_4$  based ceramics. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.151-154
22. **MIŠKOVÁ, A.** - **BRUNCKOVÁ, H.** - **DUDROVÁ, E.**: Compressibility and microstructure of coated composite  $\text{Fe}/\text{SiO}_2$  powders. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.604-607
23. **KAŠIAROVÁ, M.** - **GALUSKOVÁ, D.** - **HNATKO, M.** - **GALUSEK, D.** - **DUSZA, J.** - **ŠAJGALÍK, P.**: Corrosion resistance of different ceramic materials in aqueous solution of NaCl. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.576-579
24. VLASÁK, T. - HAKL, J. - NOVÁK, V. - **VÝROSTKOVÁ, A.**: Creep properties and microstructure of the new austenitic steel. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.409-415
25. **PETRYSHYNETS, I.** - **STOYKA, V.** - **ZUBKO, P.** - **GAVENDOVÁ, P.** - **KOVÁČ, F.**: Dependence of grains hardness on crystallographic orientation in electrotechnical steels. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.238-241
26. **STOYKA, V.** - **KOVÁČ, F.** - **PETRYSHYNETS, I.**: Detection of microstructure and texture development in grain-oriented steels by coercive force measurements. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.98-104
27. **SHYKULA, P.** - **ORO, R.** - **DUDROVÁ, E.** - **CAMPUS, M.** - **TORRALBA, J.** - **BENGTSSON, S.**: Effect of particle size of master alloy (316L) on porosity and microstructure of Fe-Ni-Cr-Mo-Mn-C sintered steels. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.586-591
28. **BUREŠ, R.** - **FÁBEROVÁ, M.**: Evaluation of homogeneity of microcomposite PM materials. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.597-603
29. **LOFAJ, F.** - **HVIŠČOVÁ, P.** - **DUSZOVÁ, A.**: Friction contact with the transfer films in the nanocomposite WC-C coatings. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.631-635
30. **PETRYSHYNETS, I.** - **KOVÁČ, F.** - **STOYKA, V.**: Influence of small deformations on grains growth in silicon steels. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.206-211
31. **ROSENBERG, G.** - **BURÍKOVÁ, K.** - **KEPIČ, J.**: Influence of stress concentrators on localization of plastic deformation of ultra high strength dual phase steel. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.322-325
32. **ROSENBERG, G.** - **KEPIČ, J.** - **BURÍKOVÁ, K.**: Mechanical properties of ultra-high strength dual phase steels. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.316-321
33. **FÁBEROVÁ, M.** - **BUREŠ, R.**: Metallographic analysis of Fe/resin PM material. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.608-611
34. **CSEHOVÁ, E.** - **DUSZA, J.** - **LIMPICHAIPANIT, A.** - **SEDLÁČEK, J.**: Microstructure and fracture properties of  $\text{Al}_2\text{O}_3$ -SiC nanocomposites. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.514-517
35. **PUCHÝ, V.** - **DUSZOVÁ, A.** - **DUSZA, J.** - **MORGIEL, J.**: Microstructure and grain boundaries of  $\text{ZrO}_2$  + CNF composites. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.530-533
36. **DUDROVÁ, E.** - **ACTIS-GRANDE, M.** - **ROSSO, M.** - **KABÁTOVÁ, M.** - **BIDULSKÝ, R.** - **HRYHA, E.**: Microstructure and mechanical properties of Fe-Cr-Mo-[Cu-Ni]-C sintered steels. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.580-585
37. **TATARCO, P.** - **DUSZA, J.** - **ŠAJGALÍK, P.**: Microstructure and room temperature mechanical properties of  $\text{Si}_3\text{N}_4$ /SiC composites with different sintering additives. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.534-537
38. **MICHALCOVÁ, A.** - **VOJTĚCH, D.** - **NOVÁK, P.** - **SAKSL, K.** - **KLEMENTOVÁ, M.** - **SPOTZ, Z.** - **ROKICKI, P.**: Structure of Al-TM-Ce alloys. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.480-483
39. **HRUBOVČÁKOVÁ, M.** - **DUDROVÁ, E.**: Study of oxides reduction in Fe-3Cr-0,3Mo steel during sintering using continuous monitoring of sintering atmosphere composition. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.612-615

40. ČIRIPOVÁ, L. - DŽUPON, M.: The effect of galvannealing on selected plastic properties of trip steels. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.382-385
41. KOVALČÍKOVÁ, A. - DUSZA, J.: The influence of annealing on the microstructure and basic mechanical properties of silicon carbide ceramics. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.542-545
42. DUSZOVÁ, A. - PUCHÝ, V. - HVIZDOŠ, P. - LOFAJ, F. - DUSZA, J.: Tribological behavior of CNFs/ZrO<sub>2</sub> composite. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.510-513
43. HVIZDOŠ, P.: Wear damage micromechanisms in biomedically graded zirconia. Acta Metallurgica Slovaca Conference, 2010, no. 1, s.351-356
44. ČIRIPOVÁ, L. - DŽUPON, M.: Failure of Zn-Fe coating on trip steel. Acta Metallurgica Slovaca Conference, 2010, no. 2, s.162-166
45. JAKUBÉCZYOVÁ, D. - DŽUPON, M. - HAGAROVÁ, M.: Identification of adhesive properties of the system thin layer - PM base material after bending failure. Acta Metallurgica Slovaca Conference, 2010, no. 2, s.151-157
46. LOFAJ, F. - ČOPAN, P. - HNATKO, M.: Indentation strength and fractography of silica bonded porous silicon nitride. Acta Metallurgica Slovaca Conference, 2010, no. 2, s.44-51
47. BRUNCKOVÁ, H. - KABÁTOVÁ, M. - DUDROVÁ, E.: Influence of colloidal and polymeric sols on the morphology Al<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub> sol-gel coated carbonyl iron powders. Acta Metallurgica Slovaca Conference, 2010, no. 2, s.115-119
48. BRUNCKOVÁ, H. - MEDVECKÝ, I. - ĎURIŠIN, J.: Influence of substrate on the microstructure thin PZT films prepared by spin-coating method from sol-gel precursors. Acta Metallurgica Slovaca Conference, 2010, no. 2, s.120-124
49. CSEHOVÁ, E. - LIMPICHAIPANIT, A. - DUSZA, J.: Mechanical properties and fracture of Al<sub>2</sub>O<sub>3</sub>-SiC nanocomposites. Acta Metallurgica Slovaca Conference, 2010, no. 2, s.158-161
50. HVIZDOŠ, P. - JAKUBÉCZYOVÁ, D. - SEMRÁD, K. - RODZINÁK, D.: Tribological properties of CrL and CrM based PM materials. Acta Metallurgica Slovaca Conference, 2010, no. 2, s.146-150
51. BESTERCI, M. - VELGOSOVÁ, O. - KOVÁČ, L.: Influence of technological and testing factors on fracture micromechanism of Al-Al<sub>4</sub>C<sub>3</sub> composite. Acta Metallurgica Slovaca Conference, 2010, no. 3, s.10-18
52. VARCHOLA, M. - BESTERCI, M. - SÜLLEIOVÁ, K.: Stability of mechanical properties of Al-Al<sub>4</sub>C<sub>3</sub> system at elevated temperatures and various annealing times and temperatures. Acta Metallurgica Slovaca Conference, 2010, no. 3, s.25-31
53. MOLNÁROVÁ, M. - SAS, J. - KVAČKAJ, T. - MIŠIČKO, R. - VOJTKO, M.: Structure investigation of multiphase C-Mn-Si steel after thermomechanical processing. Acta Metallurgica Slovaca Conference, 2010, no. 3, s.55-60
54. BALLÓKOVÁ, B. - BESTERCI, M. - ŠAROUN, J.: Study and measurement of microstructure parameters of MoSi<sub>2</sub> based composite materials by sans investigations. Acta Metallurgica Slovaca Conference, 2010, no. 3, s.32-37
55. VARCHOLA, M. - SAKSL, K. - ĎURIŠIN, J. - BESTERCI, M.: Texture analysis of dispersion strengthened Al-Al<sub>4</sub>C<sub>3</sub> material by XRD method. Acta Metallurgica Slovaca Conference, 2010, no. 3, s.19-24
56. KEPIČ, J. - HUDAČ, J. - TOMÁŠ, M. - FALAT, L. - VÝROSTKOVÁ, A.: The influence of material model on the result of simulation of flat forming. Acta Metallurgica Slovaca Conference, 2010, no. 3, s.85-90
57. BRUNCKOVÁ, H. - MEDVECKÝ, I.: Fázové zloženie a morfológia sodíkom dotovaných PMN povlakov pripravených sol-gel metódou. Transfer inovácií, 2010, 17, s.18-22
58. DŽUPON, M. - JAKUBÉCZYOVÁ, D. - SINAJOVÁ, I.: Korózna odolnosť zinkového povlaku v závislosti od stavu povrchu. Transfer inovácií, 2010, 17, s.34-37
59. KUPKOVÁ, M. - ORIŇÁKOVÁ, R. - KLADEKOVÁ, D.: Štúdium procesu nanášania binárneho Cu-Ni povlaku na železné častice a jeho vplyv na priebeh kompaktizácie. Transfer inovácií, 2010, 17, s.81-84
60. ROSENBERG, G. - JUHAR, Ľ.: Účinok tryskania na únavové vlastnosti dvojfázovej ocele HDT580X. Transfer inovácií, 2010, 17, s.105-109
61. ROSENBERG, G. - SINAJOVÁ, I. - KOČÍK, M. - JUHAR, Ľ.: Vplyv stavu povrchu oceľového plechu HX180YD na jeho odolnosť voči cyklickým zaťaženiam. Transfer inovácií, 2010, 17, s.110-115
62. FERDINANDY, M. - DUSZA, J.: Vplyv uhlia dopadu častic titánu na textúru a tvrdosť povlakov nitridu titánu pripravených metódou PVD. Transfer inovácií, 2010, 17, s.38-41
63. JAKUBÉCZYOVÁ, D. - HAGAROVÁ, M. - DŽUPON, M.: Zmena teplotných podmienok pri pin-on-disc teste s ohľadom na morfológiu tenkých povlakov. Transfer inovácií, 2010, 17, s.55-58
64. JAKUBÉCZYOVÁ, D. - SELECKÁ, M.: Analysis of adhesion properties of thin PVD coatings applied on the substrate produced by powder metallurgy. Naučni izvestija, 17, 2010, s.343-350
65. MIŠKOVÁ, A. - BRUNCKOVÁ, H. - DUDROVÁ, E. - SELECKÁ, M.: Compressibility of composite powder system Fe/SiO<sub>2</sub>. Naučni izvestija, 17, 2010, s.331-336
66. HRUBOVČÁKOVÁ, M. - DUDROVÁ, E. - SELECKÁ, M.: Effect of density of compact Fe-3Cr-0,5Mo steels on oxide reduction processes during sintering. Naučni izvestija, 17, 2010, s.337-342

67. SELECKÁ, M. - ANESTIJEV, L. - GEORGIEV, J. - BENDEREDA, E.: Microstructure and fracture of FeCr steels with different carbon donor. Naučni izvestija, 17, 2010, s.325-330
68. ANESTIJEV, L. - BENDEREDA, E. - GEORGIEV, J. - SELECKÁ, M.: Sravnitelni analiz na spečeni splavi na željazna osnova, s ispolzvani različni donori na vgljerođ. Naučni izvestija, 17, 2010, s.124-132
69. ROKICKI, P. - NOWAG, K. - SPOTZ, Z. - FUSOVÁ, L. - SAKSL, K. - ĐURIŠIN, J. - GHISLENI, R. - SIEMERS, C.: Microstructural characteristics of Ti-15V-3Al-3Sn-3Cr chips. Rudy i metale nieželazne, 55, 2010, no. 7, s.452-456

## Other journals

1. CSEHOVÁ, E. - ANDREJOVSKÁ, J. - LIMPICHAIPANIT, A. - DUSZA, J. - TODD, R.: Indentation load-size effect in  $\text{Al}_2\text{O}_3$ -SiC nanocomposites. Journal of Electrical Engineering, 61, 2010, no. 5, s.305-307
2. TATARCO, P. - LOJANOVÁ, Š. - CHLUP, Z. - DUSZA, J. - ŠAJGALÍK, P.: Microstructure and mechanical properties of rare-earth doped  $\text{Si}_3\text{N}_4$  and  $\text{Si}_3\text{N}_4/\text{SiC}$  ceramics. Advances in Science and Technology, 65, 2010, s.78-85
3. BESTERCI, M. - DOBEŠ, F. - KULU, P. - SÜLLEIOVÁ, K.: Using small punch testing method for the analysis of creep behaviour of Al-Al<sub>4</sub>C<sub>3</sub> composites. Estonian Journal of Engineering, 16, 2010, s.243-254
4. CENIGA, L.: Analytical model of thermal stresses and analytical fracture mechanics in YBaCuO superconductors. International Journal of Condensed Matter, Advanced Materials and Superconductivity Research, 9, 2010, s.95-144
5. DUSZA, J. - HEGEDUSOVÁ, L. - KAŠIAROVÁ, M. - CSEHOVÁ, E.: Bending and contact strength of a ceramic nanocomposite. Key Engineering Materials, 417-418, 2010, s.761-764
6. HAGAROVÁ, M. - VOJKO, M. - JAKUBÉCZYOVÁ, D.: Analýza odolnosti PVD vrstiev v tribologických podmienkach pri zvýšenej teplote. Koroze a ochrana materiálu, 54, 2010, no. 2, s.45-50
7. TATARCO, P. - LOJANOVÁ, Š. - DUSZA, J. - ŠAJGALÍK, P.: Characterization of rare-earth doped  $\text{Si}_3\text{N}_4/\text{SiC}$  micro/nano-composites. Processing and Application of Ceramics, 4, 2010, s.25-32
8. SRDIC, V. - DJENADIC, R. - MILANOVIC, M. - PAVLOVIC, N. - STIJEPOVIC, I. - NIKOLIC, L. - MOSHOPOULOUS, E. - GIANNAKOPOULOS, K. - DUSZA, J. - MACA, K.: Direct synthesis of nanocrystalline oxide powders by wet-chemical techniques. Processing and Application of Ceramics, 4, 2010, s.127-134
9. MANDZIEJ, S.T. - VÝROSTKOVÁ, A. - SOLAR, M.: Accelerated Creep Testing of New Creep-Resisting Weld Metals. Welding in the World, 54, 2010, no. 7/8, s.R160-R172
10. KOLESÁR, V. - GIRMAN, V. - SOVÁK, P. - SAKSL, K.: Study of crystallization process in V-substituted finement alloys. Acta Electrotechnica et Informatica, 10, 2010, no. 3, s.66-70
11. RODZIŇÁK, D. - ZAHRADNÍČEK, R. - HVIZDOŠ, P. - JAKUBÉCZYOVÁ, D.: Effect of nitridation on contact fatigue and wear damage of astaloy CrL and CrM steels. Acta Metallurgica Slovaca, 16, 2010, no. 1, s.12-19
12. VARCHOLA, M. - BESTERCI, M. - SÜLLEIOVÁ, K.: Quantitative microstructure analysis of dispersion strengthened Al-Al<sub>4</sub>C<sub>3</sub> material by EBSD technique. Acta Metallurgica Slovaca, 16, 2010, no. 2, s.97-101
13. TRPČEVSKÁ, J. - HLUCHÁŇOVÁ, B. - VINDT, T. - ZORAWSKI, W. - JAKUBÉCZYOVÁ, D.: Characterization of the bottom dross formed during batch hot-dip galvanizing and its refining. Acta Metallurgica Slovaca, 16, 2010, no. 3, s.151-156
14. HAGAROVÁ, M. - ŠTĚPÁNEK, I. - JAKUBÉCZYOVÁ, D.: Evaluation of thin PVD coatings by adhesive-cohesive test. Acta Metallurgica Slovaca, 16, 2010, no. 3, s.157-164
15. RODZIŇÁK, D. - JAKUBÉCZYOVÁ, D. - ZAHRADNÍČEK, V. - HVIZDOŠ, P.: Rolling contact fatigue and wear of CrL and CrM mode powder metallurgy steels. Materials Engineering, 17, 2010, s.23-28
16. HRUBOVČÁKOVÁ, M. - DUDROVÁ, E.: Redukcia oxidov pri spekaní Fe-Cr-Mo ocele. Výrobné inžinierstvo, 9, 2010, no. 1, s.59-61,63
17. ČIRIPOVÁ, L. - KABÁTOVÁ, M. - DUDROVÁ, E.: Vplyv mikroštruktúry na lomovú húževnatosť Fe-Cr-Mo spekanej ocele. Výrobné inžinierstvo, 9, 2010, no. 1, s.49-54
18. ROSENBERG, G. - BURÍKOVÁ, K. - JUHAR, L. - HUDÁK, J. - TOMÁŠ, M.: Deformačné chovanie a vrubová citlivosť vysokopevných ocelí. Výrobné inžinierstvo, 9, 2010, no. 2, s.38-40,62
19. KUPKOVÁ, M. - ORIŇÁKOVÁ, R. - KLADEKOVÁ, D. - KAĽAVSKÝ, F.: Dimensional changes of compacts prepared from powders consisting of Cu, Cu-Ni coated iron particles. Výrobné inžinierstvo, 9, 2010, no. 2, s.41-43
20. RODZIŇÁK, D. - HVIZDOŠ, P. - SEMRÁD, K. - ČERŇAN, J.: The effect of pin hardness on wear of sintered materials. Výrobné inžinierstvo, 9, 2010, no. 3, s.36-39

## Proceedings

1. ZAHRA, B. - SIEMERS, C. - **ROKICKI, P.** - RÖSLER, J. - **SAKSL, K.**: Modification of alloy 625 by addition of second-phase particles. In: 20th International Workshop on Computational Mechanics of Materials. 2nd MaMiNa Conference. Loughborough, 8.-10.9.2010. B.V. 2010, s.104-112
2. **TATARKO, P.** - LOJANOVÁ, Š. - **DUSZA, J.** - ŠAJGALÍK, P.: Microstructure and mechanical properties of rare-earth doped  $\text{Si}_3\text{N}_4/\text{SiC}$  nanocomposites. In: 5th international conference on MEMS, NANO, and smart systems. Dubai, UAE, 28.-30.12.2009. Los Alamitos : IEEE Computer Society 2010, s.137-141
3. MICHALCOVÁ, A. - VOJTĚCH, D. - NOVÁK, P. - **SAKSL, K.** - **SPOTZ, Z.** - **ROKICKI, P.** - SIEMERS, C.: Influence of Fe and Cr on properties of rapidly solidified Al-Cr-Fe-CE alloy. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. CD ROM. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger, s.r.o. 2010, s.CD ROM
4. **JAKUBÉCZYOVÁ, D.** - SAVKOVÁ, J. - HAGAROVÁ, M. - **DŽUPON, M.**: Modern PVD layers deposited onto cutting tools produced by powder metallurgy. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. CD ROM. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger, s.r.o. 2010, s.CD ROM
5. **DŽUPON, M.** - HOMOLOVÁ, V. - SINAIOVÁ, I. - ČIRIPOVÁ, L.: Possibilities of prediction of the martensite volume fraction in dual-phase microalloyed low-carbon steels. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. CD ROM. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger, s.r.o. 2010, s.CD ROM
6. **DŽUPON, M.** - ČIRIPOVÁ, L. - **JAKUBÉCZYOVÁ, D.**: Proof strength of dual-phase microalloyed low-carbon steels. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. CD ROM. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger, s.r.o. 2010, s.CD ROM
7. MICHALCOVÁ, A. - VOJTĚCH, D. - NOVÁK, P. - BEZDIČKA, P. - KLEMENTOVÁ, M. - DRAHOKOUPIL, J. - **SAKSL, K.** - **SPOTZ, Z.** - **ROKICKI, P.** - SIEMERS, C.: Structure of rapidly solidified aluminium-based alloys. In: Metal 2010. 19. Mezinárodní konference metalurgie a materiálů. CD ROM. Rožnov pod Radhoštěm, 18.-20.5.2010. Ostrava : Tanger, s.r.o. 2010, s.CD ROM
8. ROSENBERG, G.: Diferenciálny interferenčný kontrast - efektívny nástroj pre predikciu medzného stavu kovových materiálov. In: Mikroskopie a nedestruktívne zkoušení materiálů. 1. Mezinárodní konference. Ústí nad Labem, 24.-25.11.2010. Ústí nad Labem : Univerzita J.E.Purkyně 2010, s.CD ROM
9. BRUNCKOVÁ, H. - MEDVECKÝ, L. - ĎURIŠIN, J. - HVIZDOŠ, P.: Morfológia Na dopovaných PMN tenkých vrstiev pripravených sol-gel metódou. In: Vrstvy a povlaky 2010. 9. Ročník konferencie. Rožnov pod Radhoštěm, 4.-5.10.2010. Trenčín : Miloš Vavrík 2010, s.111-114
10. KUPKOVÁ, M. - **JAKUBÉCZYOVÁ, D.** - HAGAROVÁ, M.: Použitie fraktálnej geometrie na hodnotenie tribologických vlastností tenkých TiN/TiAlN multivrstiev deponovaných PVD metódou. In: Vrstvy a povlaky 2010. 9. Ročník konferencie. Rožnov pod Radhoštěm, 4.-5.10.2010. Trenčín : Miloš Vavrík 2010, s.121-124
11. **JAKUBÉCZYOVÁ, D.** - HVIZDOŠ, P. - HAGAROVÁ, M. - KUPKOVÁ, M.: Vplyv teploty na tribologické charakteristiky tenkých vrstiev deponovaných na podklade vyrobenom práškovou metalurgiou. In: Vrstvy a povlaky 2010. 9. Ročník konferencie. Rožnov pod Radhoštěm, 4.-5.10.2010. Trenčín : Miloš Vavrík 2010, s.115-119
12. ROSENBERG, G.: Účinok starnutia na odolnosť ocele S 355 voči rastu únavových trhlín. In: Letná škola únavy materiálov 2010. 10. Ročník. Žilina - Oščadnica, 30.8.-3.9.2010. Žilina : SjF ŽU 2010, s.156-159
13. FUSOVÁ, L. - **ROKICKI, P.** - **SPOTZ, Z.**: A study of the wear of cutting tools. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.27-30
14. **ROKICKI, P.** - **SPOTZ, Z.** - FUSOVÁ, L.: Beta Ti alloy chips characteristics. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.44-47
15. SHYKULA, P. - DUDROVÁ, E. - FRYKHOLM, R. - BENGTSSON, S.: Design and studying of master alloys for sintered steels using computational software. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.52-55
16. SPOTZ, Z. - **ROKICKI, P.** - FUSOVÁ, L.: Influence of heat treatment on microstructure of Ti-15V-3Cr-3Sn-3Al alloy. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.56-59
17. MIŠKOVÁ, A.: Kompaktizácia a vlastnosti práškových mikrokompozitných materiálov. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.179-182
18. VARCHOLA, M. - SVOBODA, M. - SÜLLEIOVÁ, K. - BESTERCI, M.: Kvantitatívna analýza mikroštruktúry disperzne spevnených  $\text{Al}-\text{Al}_4\text{C}_3$  materiálov metódou difrákcie späťne rozptýlených elektrónov (EBSD). In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.239-242

19. **TATARKO, P. - DUSZA, J. - ŠAJGALÍK, P.**: Mechanical properties of rare-earth doped silicon nitride based ceramics at room temperature. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.60-63
20. **CSEHOVÁ, E. - DUSZA, J. - LIMPICHAIPANIT, A.**: Microstructure and mechanical properties of  $\text{Al}_2\text{O}_3$ -SiC nanocomposites. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.11-14
21. **PUCHÝ, V. - DUSZOVÁ, A. - DUSZA, J.**: Microstructure and properties of the HP and SPS  $\text{ZrO}_2 + \text{CNF}$  composites. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.40-43
22. **HRUBOVČÁKOVÁ, M. - DUDROVÁ, E.**: Mikrochémia interfázových oblastí spekaných vysokopevných ocelí. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.140-143
23. **MACKO, R. - KEPIČ, J.**: Porušovanie zvarových spojov feritických žiarupevných ocelí po tepelnej expozícii a vodíkovaniu. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.152-155
24. **LOFAJ, F. - DUSZOVÁ, A. - HVIŠČOVÁ, P.**: Tribological behaviour of nanocomposite PECVD WC-C coatings. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.19-22
25. **GAVENDOVÁ, P. - ZUBKO, P. - PEŠEK, L. - BLÁHOVÁ, O.**: Využitie DS1 metódy na stanovenie vlastností ocele St 52 a zliatiny hliníka AA6063. In: SEMDOK 2010. 15th international PhD. student's seminar. Žilina - Terchová, 27.-29.1.2010. Žilina : University of Žilina 2010, s.132-135

## Monographs

1. **HEGEDUSOVÁ, L. - CENIGA, L. - DUSZA, J.**: Contact strength of ceramic materials. In: Ceramic and Polymer Matrix Composites: Properties, Performance and Applications. Ed. E. Dimitriou, M. Petralia. Nova Science Publishers 2010, s.234-284
2. **CENIGA, L.**: New analytical model of thermal stresses and analytical fracture mechanics in two-component materials. Application to two-component ceramics. In: Ceramic and Polymer Matrix Composites: Properties, Performance and Applications. Ed. E. Dimitriou, M. Petralia. Nova Science Publishers 2010, s.285-331
3. **LOFAJ, F. - WIEDERHORN, S.M.**: Creep mechanisms in commercial grades of silicon nitride. In: Ceramics Science and Technology. Vol. 2: Properties. Ed. R. Riedel, I-Wei Chen. Weinheim : Wiley-VCH Verlag 2010, s.577-599
4. **ROSENBERG, G.**: Diferenciálny interferenčný kontrast - efektívny nástroj pre predikciu medzného stavu kovových materiálov. In: Michna, Š., Kušmierczak, S., Bajcura, M.: Metalografie - metody a postupy. Ed. M. Novák. Prešov : Adin, s.r.o. 2010, s.101-113

## Abstracts

1. **PETRYSHYNETS, I. - KOVÁČ, F. - STOYKA, V. - BOŘUTA, J.**: Influence of microstructure evolution on the coercive forces in low silicon non-oriented steels. In: CSMAG '10. 14th Czech and Slovak Conference on Magnetism. Book of Abstracts. Košice, 6.-9.7.2010. Ed. P. Sovák a kol.. Košice : UPJŠ 2010, s.219
2. **STOYKA, V. - KOVÁČ, F. - PETRYSHYNETS, I. - SCHINDLER, I.**: Tracking of abnormal grain growth evolution in grain-oriented electrical steels by coercive force measurements. In: CSMAG '10. 14th Czech and Slovak Conference on Magnetism. Book of Abstracts. Košice, 6.-9.7.2010. Ed. P. Sovák a kol.. Košice : UPJŠ 2010, s.220
3. **KOVAL, V. - BHARADWAJA, S. - TROLIER-MCKINSTRY, S.**: Lead zirconate titanate micro tubes prepared by liquid source misted chemical deposition. In: Single- and Multiphase Ferroics and Multiferroics with Restricted Geometries. Joint WGs Workshop of the COST MP0904 Action. Edinburgh, 12.8.2010. B.V. 2010, s.34
4. **KOVAL, V. - BHARADWAJA, S. - TROLIER-MCKINSTRY, S.**: Mist deposited lead zirconate titanate thin films. In: ISAF ECAPD 2010. 19th International Symposium on the Applications of Ferroelectrics. 10th European Conference on the Applications of Polar Dielectrics. Edinburgh, 9.-12.8.2010. B.V. 2010, s.119
5. **MIHÁLIK, M. - ANTOŇÁK, M. - ĎURIŠIN, J. - FÁBEROVÁ, M. - MIHÁLIK, M. - VÁVRA, M. - ZENTKOVÁ, M.**: Magnetic properties of  $\text{La}_1\text{-alphaCa}_4\text{MnO}_3\text{-gamma}$  nanoparticles. In: JEMS 2010. Joint European Magnetic Symposia. Abstracts. Krakow, 23.-28.8.2010. B.V. 2010, s.147
6. **JAKUBÉCZYOVÁ, D. - HAGAROVÁ, M. - DŽUPON, M.**: Application of modern PVD layers onto cutting tools produced by powder metallurgy. In: Metalurgija, 49, 2010, no. 3, s.202

7. **BALLÓKOVÁ, B. - BESTERCI, M.**: Creep behavior of MoSi<sub>2</sub>/MoSi<sub>2</sub> + nano SiC layered composite. In: Metalurgija, 49, 2010, no. 3, s.203
8. **DŽUPON, M. - SINAIOVÁ, I. - ČIRIPOVÁ, L. - JAKUBÉCZYOVÁ, D.**: Microstructure of dual-phase microalloyed low-carbon steels. In: Metalurgija, 49, 2010, no. 3, s.203
9. **KUPKOVÁ, M. - JAKUBÉCZYOVÁ, D. - HAGAROVÁ, M.**: On the use of fractal geometry concepts for evaluating the tribological properties of thin layers deposited by PVD method. In: Metalurgija, 49, 2010, no. 3, s.203
10. **DORČÁK, L. - TERPÁK, J. - HOROVČÁK, P. - DORČÁKOVÁ, F. - PIVKA, L.**: The web-based service for calculation of the coefficients of material properties. In: Metalurgija, 49, 2010, no. 3, s.224
11. **KOVALČÍKOVÁ, A. - DUSZA, J. - BALÁZSI, C.**: Thermal shock resistance of Si<sub>3</sub>N<sub>4</sub>/CNT reinforced ceramics. In: Metalurgija, 49, 2010, no. 3, s.211
12. **LOFAJ, F. - HVÍŠČOVÁ, P. - DUSZOVÁ, A.**: Wear mechanism of WC-C coatings. In: Metalurgija, 49, 2010, no. 3, s.215
13. **TATARKO, P. - CHLUP, Z. - DUSZA, J.**: Microstructure, fracture and damage mechanisms in rare-earth doped silicon nitride ceramics. In: MSMF6. 6th International Conference on Materials Structure and Micromechanics of Fracture. Brno, 28.-30.6.2010. Ed. P. Šandera. Brno : FSI VUT 2010, s.46
14. **BUREŠ, R. - SAXL, I. - FÁBEROVÁ, M.**: Quantification of carbide distribution in PM tool steels with niob addition. In: MSMF6. 6th International Conference on Materials Structure and Micromechanics of Fracture. Brno, 28.-30.6.2010. Ed. P. Šandera. Brno : FSI VUT 2010, s.81
15. **MICHALCOVÁ, A. - VOJTĚCH, D. - NOVÁK, P. - PROCHÁZKA, I. - ČÍŽEK, J. - DRAHOKOUPIL, J. - WIENEROVÁ, K. - SAKSL, K. - ROKICKI, P. - SPOTZ, Z.**: Structure of rapidly solidified Al-Fe-Cr-Ce alloy. In: MSMF6. 6th International Conference on Materials Structure and Micromechanics of Fracture. Brno, 28.-30.6.2010. Ed. P. Šandera. Brno : FSI VUT 2010, s.71
16. **HVIZDOŠ, P. - DUSZOVÁ, A. - PUCHÝ, V. - TAPASZTÓ, O. - KUN, P. - DUSZA, J. - BALÁZSI, C.**: Wear Behavior of ZrO<sub>2</sub>-CNF and Si<sub>3</sub>N<sub>4</sub>-CNT nanocomposites. In: MSMF6. 6th International Conference on Materials Structure and Micromechanics of Fracture. Brno, 28.-30.6.2010. Ed. P. Šandera. Brno : FSI VUT 2010, s.181
17. **KAŠIAROVÁ, M. - DUSZA, J. - HNATKO, M. - ŠAJGALÍK, P.**: Influence of volume fraction of SiC nanoparticles on the mechanical properties of Si<sub>3</sub>N<sub>4</sub>-SiC nanocomposite. In: Nano 2010. 10th International conference on nanostructured materials. Abstract Book. Roma, 13.-17.9.2010. B.V. 2010, s.23
18. **TATARKO, P. - DUSZA, J. - ŠAJGALÍK, P.**: Mechanical properties of Si<sub>3</sub>N<sub>4</sub>-SiC nanocomposites with different rare-earth oxide sintering additives. In: Nano 2010. 10th International conference on nanostructured materials. Abstract Book. Roma, 13.-17.9.2010. B.V. 2010, s.22
19. **GAVENDOVÁ, P. - KOVÁČ, F. - PETRYSHYNETS, I. - STOYKA, V.**: Measurements of parameters determining mechanical properties of grains with particular orientation in non-oriented steels. In: Nanomeasure 2010. Abstract Book. Krakow, 3.-4.6.2010. Krakow : Uniwersytet Jagiellonski 2010, s.45-46
20. **TATARKO, P. - KAŠIAROVÁ, M. - MORGIEL, J. - DUSZA, J. - ŠAJGALÍK, P.**: Creep and oxidation resistance of rare-earth doped Si<sub>3</sub>N<sub>4</sub> based composite. In: Processing of Nanostructured Ceramics, Polymers and Composites. International Workshop. Book of Abstracts. Beograd, 29.-30.11.2010. Beograd : Faculty of Technology and Metallurgy 2010, s.53
21. **RISTIČ, M. - HVIZDOŠ, P. - VUKIČ, N. - SIMENDIČ, V.**: Surface characterization of polyurethane nanocomposites based on renewable resources. In: Processing of Nanostructured Ceramics, Polymers and Composites. International Workshop. Book of Abstracts. Beograd, 29.-30.11.2010. Beograd : Faculty of Technology and Metallurgy 2010, s.55
22. **CSEHOVÁ, E. - SEDLÁČEK, J. - DUSZA, J.**: Tribological properties of hot pressed Al<sub>2</sub>O<sub>3</sub>-SiC nanocomposites. In: Processing of Nanostructured Ceramics, Polymers and Composites. International Workshop. Book of Abstracts. Beograd, 29.-30.11.2010. Beograd : Faculty of Technology and Metallurgy 2010, s.47
23. **LOFAJ, F. - HVÍŠČOVÁ, P. - DUSZOVÁ, A. - DUSZA, J.**: AFM characterization of topography and mechanical properties of nanocomposite PECVD WC-C coatings. In: RP DEMATEN. The second workshop. Structural and functional characterisation of complex materials. Chalkidiki, 3.-5.6.2010. B.V. 2010, s.36
24. **TATARKO, P. - LOJANOVÁ, Š. - DUSZA, J. - ŠAJGALÍK, P.**: Influence of rare-earth oxide sintering additives on mechanical properties of Si<sub>3</sub>N<sub>4</sub>-SiC micro/nano composites. In: RP DEMATEN. The second workshop. Structural and functional characterisation of complex materials. Chalkidiki, 3.-5.6.2010. B.V. 2010, s.54
25. **CSEHOVÁ, E. - DUSZA, J. - LIMPICHAIPANIT, A. - SEDLÁČEK, J.**: Microstructure and fracture properties of Al<sub>2</sub>O<sub>3</sub>-SiC nanocomposites. In: RP DEMATEN. The second workshop. Structural and functional characterisation of complex materials. Chalkidiki, 3.-5.6.2010. B.V. 2010, s.50

26. PUCHÝ, V. - DUSZOVÁ, A. - DUSZA, J.: Microstructure and grain boundary of ZrO<sub>2</sub> + CNF composites. In: RP DEMATEN. The second workshop. Structural and functional characterisation of complex materials. Chalkidiki, 3.-5.6.2010. B.V. 2010, s.49
27. DUSZA, J.: Microstructures and grain boundaries of ceramic nanocomposites. In: RP DEMATEN. The second workshop. Structural and functional characterisation of complex materials. Chalkidiki, 3.-5.6.2010. B.V. 2010, s.26
28. DUSZOVÁ, A. - PUCHÝ, V. - HVIZDOŠ, P. - LOFAJ, F. - DUSZA, J.: Tribological behavior of CNFs / ZrO<sub>2</sub> composite. In: RP DEMATEN. The second workshop. Structural and functional characterisation of complex materials. Chalkidiki, 3.-5.6.2010. B.V. 2010, s.51
29. LOFAJ, F. - CEMPURA, G. - HVIŠČOVÁ, P. - DUSZOVÁ, A. - DUSZA, J. - MIKULA, M. - KÚŠ, P.: Elastic properties of thin nanocrystalline WC-C and TiB<sub>2</sub> coatings by nanoindentation and AFM. In: Seeing at the Nanoscale 8. International Conference. Abstracts. Basel, 30.8.-1.9.2010. B.V. 2010, s.172

## Textbooks

1. KOTTFER, D. - FERDINANDY, M.: Tenké vrstvy. Skriptá. Košice : SjF TU 2010, 100 s.
2. LOFAJ, F. - DUSZA, J. - HVIZDOŠ, P. - LENČEŠ, Z. - GALUSEK, D. - GALUSKOVÁ, D.: Teória a technológia spracovania keramických materiálov. VŠ skriptá. Trnava : MTF STU 2010, 193 s.

## Other publications

26. ŠEVC, P. - SAKSL, K. - ROSENBERG, G. - KOVÁČ, F. - VÝROSTKOVÁ, A. - DUDROVÁ, E. - ĎURIŠIN, J. - MEDVECKÝ, L. - DUSZA, J. - DŽUPON, M. - KATANA, V. - BUREŠ, R.: Institute of Materials Research of Slovak Academy of Sciences. Five year report 2005-2009. Report. Košice : ÚMV SAV 2010, 104 s.