

#### **Abrasive impact wear and surface fatigue wear behaviour of Fe-Cr-C PTA overlays**

**Veinthal, Renno; Sergejev, Fjodor; Zikin, Arkadi; Tarbe, Riho; Hornung, J.** 19th International Conference on Wear of Materials : Portland, Oregon, USA, 14-18 April 2013 : conference abstracts 2013 / [p. 98]

#### **Abrasive impact wear and surface fatigue wear behaviour of Fe-Cr-C PTA overlays**

**Veinthal, Renno; Sergejev, Fjodor; Zikin, Arkadi; Tarbe, Riho; Hornung, Johann** Wear 2013 / p. 102-108

<https://www.sciencedirect.com/science/article/pii/S0043164813000999> <https://doi.org/10.1016/j.wear.2013.01.077> [Journal metrics at Scopus](#)  
[Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Additive manufacturing of CMCs with bimodal microstructure**

**Maurya, Himanshu Singh; Vikram, R. J.; Kosiba, Konrad; Juhani, Kristjan; Sergejev, Fjodor; Suwas, Satyam; Prashanth, Konda Gokuldoss** Journal of alloys and compounds 2023 / art. 168416, 5 p. : ill <https://doi.org/10.1016/j.jallcom.2022.168416> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Additive manufacturing of TiC-based cermet with stainless steel as a binder material**

**Maurya, Himanshu Singh; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Materials today: proceedings 2022 / p. 824-828 <https://doi.org/10.1016/j.matpr.2022.02.428> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

#### **Additive manufacturing of TiC-based cermets : a detailed comparison with spark plasma sintered samples**

**Maurya, Himanshu Singh; Jayaraj, Jayamani; Vikram, Raja Jothi; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Journal of alloys and compounds 2023 / art. 170436 <https://doi.org/10.1016/j.jallcom.2023.170436> [Journal metrics at Scopus](#)  
[Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Additive manufacturing of TiC-based cermets with Fe-based binders using novel laser scan techniques =**

**Titaankarbiidsete Fe-baasil sideainega kermiste valmistamine uudse laserskaneeriva kihtlisandustehnoloogia teel**

**Maurya, Himanshu Singh** 2023 <https://doi.org/10.23658/taltech.61/2023> <https://digikogu.taltech.ee/et/Item/3dad7b12-4a7a-4c9d-8162-30388c52bf5e> [https://www.ester.ee/record=b5645217\\*est](https://www.ester.ee/record=b5645217*est)

#### **Adhesive wear of WC- and TiC-based friction stir welding tool materials for aluminium alloy welding [Electronic resource]**

**Kolnes, Mart; Kübarsepp, Jakob; Sergejev, Fjodor; Kolnes, Märt** European Powder Metallurgy Association : proceedings : 14 – 18 October 2018, Bilbao, Spain 2018 / 6 p. : ill. [USB] <https://www.epma.com/publications/euro-pm-proceedings/product/euro-pm2018-proceedings-usb>

#### **Advanced machine learning and experimental studies of polypropylene based polyesters tribological composite systems for sustainable recycling automation and digitalization**

**Hussain, Abrar; Kübarsepp, Jakob; Sergejev, Fjodor; Goljandin, Dmitri; Hussainova, Irina; Podgurski, Vitali; Karjust, Kristo; Maurya, Himanshu Singh; Rahmani Ahranjani, Ramin; Sinka, Maris** International journal of lightweight materials and manufacture 2025 / p. 252-263 <https://doi.org/10.1016/j.ijlmm.2024.11.001>

#### **Analysis of the reciprocal wear testing of Aluminum AA1050 processed by a novel mechanical nanostructuring technique**

**Omranpour Shahreza, Babak; Kommel, Lembit; Sergejev, Fjodor; Ivanisenko, Yulia; Antonov, Maksim** IOP conference series : materials science and engineering 2021 / art. 012051, 6 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012051>

#### **Application issues of additive manufacturing in plaster mold casting of metals**

**Pohlak, Meelis; Sergejev, Fjodor; Tähemaa, Toivo; Saarna, Mart; Viljus, Mart; Hermaste, Aigar** Proceedings of the Estonian Academy of Sciences 2025 / p. 181-185 <https://doi.org/10.3176/proc.2025.2.18>

#### **Application of the indentation method for cracking resistance evaluation of hard coatings on tool steels**

**Sivitski, Alina; Gregor, Andre; Saarna, Mart; Kulu, Priit; Sergejev, Fjodor** Estonian journal of engineering 2009 / 4, p. 309-317 : ill

#### **Application of the Murakami approach for prediction of surface fatigue of cemented carbides**

**Sergejev, Fjodor; Kübarsepp, Jakob; Preis, Irina** Extended abstracts of 2006 Powder Metallurgy World Congress : Busan, Korea, September 24-28. 1 2006 / p. 633-634 <https://koreascience.kr/article/CFKO200617317789652.page>

#### **Assessment of gradient and nanogradient PVD coatings behaviour under erosive, abrasive and impact wear conditions**

**Antonov, Maksim; Hussainova, Irina; Sergejev, Fjodor; Kulu, Priit; Gregor, Andre** Wear 2009 / p. 898-906 : ill

#### **Assessment of residual stresses in steels and carbide composites by load and depth sensing indentation with spherical indenter**

**Sergejev, Fjodor; Petrov, Mihail** Estonian journal of engineering 2012 / p. 259-269 : ill

#### **Behaviour of carbide composites in different operation conditions**

**Kübarsepp, Jakob; Klaasen, Heinrich; Viljus, Mart; Traksmäa, Rainer; Sergejev, Fjodor** Powder metallurgy progress 2011 / p. 258-264 : ill

**Binder jetting 3D printing of green TiC-FeCr based cermets- Effect of sintering temperature and systematic comparison study with Laser powder bed fusion fabricated parts**

**Maurya, Himanshu Singh; Marczyk, J.; Juhani, Kristjan; Sergejev, Fjodor; Kumar, R.; Hussain, Abrar; Akhtar, F.; Hebda, M.; Prashanth, Konda Gokuldoss** Materials Today Advances 2025 / art. 100562 <https://doi.org/10.1016/j.mtadv.2025.100562>

**Blanking performance and fatigue endurance of carbide composites**

**Klaasen, Heinrich; Kübarsepp, Jakob; Preis, Irina; Sergejev, Fjodor; Traksmaa, Rainer** Proceedings of 10th International Conference and Exhibition of the European Ceramic Society : June 17-21, 2007, Berlin 2007 / [4] p

**Cemented carbides surface fatigue prediction using Murakami approach**

**Sergejev, Fjodor; Preis, Irina; Kübarsepp, Jakob; Klaasen, Heinrich** Proceedings of EURO PM 2006 Congress & Exhibition : Ghent, Belgium, 23-26 Oct. 2006. 1 2006 / p. 61-66

**Characterization of coating systems by indentation method**

**Kulu, Priit; Gregor, Andre; Saarna, Mart; Sivitski, Alina; Sergejev, Fjodor; Surženkov, Andrei** Acta metallurgica Slovaca conference 2010 / 1, p. 616-624 : ill

**Circular production, designing, and mechanical testing of polypropylene-based reinforced composite materials : statistical analysis for potential automotive and nuclear applications**

**Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Antonov, Maksim; Sergejev, Fjodor; Krasnou, Illia** Polymers 2023 / art. 3410, 30 p. : ill <https://doi.org/10.3390/polym15163410> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Cobalt- and nickel-free titanium and chromium carbide-based cermets = Koobalti- ja nikli-vabad titaankarbiid- ja kroomkarbiidkermised**

**Kolnes, Märt** 2018 <https://digi.lib.ttu.ee/i/?9960> [https://www.ester.ee/record=b5138030\\*est](https://www.ester.ee/record=b5138030*est)

**Comparative analysis of residual stresses determined by various methods in brush-plated hard gold and silver coatings**

**Lille, Harri; Kõo, Jakob; Ryabchikov, Alexander; Reitsnik, Renno; Sergejev, Fjodor; Mikli, Valdek** Engineering materials & tribology XXII 2014 / p. 8-11 <https://doi.org/10.4028/www.scientific.net/KEM.604.8> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

**Comparative study of adhesive wear for CoCr, TiC-NiMo, WC-Co as potential FSW tool materials**

**Kolnes, Mart; Kübarsepp, Jakob; Sergejev, Fjodor; Kolnes, Märt** Materials Engineering 2017 : selected, peer reviewed papers from the 26th International Baltic Conference on Materials Engineering 2017, October 26-27, Kaunas, Lithuania 2017 / p. 224-228 : ill <https://doi.org/10.4028/www.scientific.net/SSP.267.224> [Conference proceedings at Scopus](#) [Article at Scopus](#)

**Comparative study of the PVD coatings on the plasma nitrided steel**

**Surženkov, Andrei; Põdra, Priit; Sergejev, Fjodor; Saarna, Mart; Adoberg, Eron; Mikli, Valdek; Viljus, Mart; Kulu, Priit** Materials science = Medžiagotyra 2012 / p. 40-44 : ill <https://matsc.ktu.lt/index.php/MatSc/article/view/1339>

**Comparative study on indentation fracture toughness measurements of cemented carbides**

**Sergejev, Fjodor; Antonov, Maksim** 15th International Baltic Conference "Engineering Materials & Tribology. Baltmattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 50-51 : ill

**Comparative study on indentation fracture toughness measurements of cemented carbides**

**Sergejev, Fjodor; Antonov, Maksim** Proceedings of the Estonian Academy of Sciences. Engineering 2006 / 4, p. 388-398 : ill

**Comparative study on indentation fracture toughness measurements of cermets and hardmetals**

**Sergejev, Fjodor** Proceedings of EURO PM 2006 Congress & Exhibition : Ghent, Belgium, 23-26 Oct. 2006. 1 2006 / p. 43-48

**Comparison of curvature and X-Ray methods for measuring of residual stresses in hard PVD coatings**

**Lille, Harri; Kõo, Jakob; Gregor, Andre; Ryabchikov, Alexander; Sergejev, Fjodor; Traksmaa, Rainer; Kulu, Priit** Materials science forum 2011 / p. 455-460

**Comparison of some mechanical and physical methods for measurement of residual stresses in brush-plated nickel hardened gold and silver coatings**

**Lille, Harri; Kõo, Jakob; Ryabchikov, Alexander; Reitsnik, Renno; Sergejev, Fjodor; Matvejev, Dmitri** Materials science = Medžiagotyra 2016 / p. 36-40 : ill <https://doi.org/10.5755/j01.ms.22.1.7439> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Comparison of values of residual stresses determined by various methods in hard nickel coatings prepared by brush-plating in sulfate solution**

**Lille, Harri; Ryabchikov, Alexander; Kõo, Jakob; Reitsnik, Renno; Veinthal, Renno; Mikli, Valdek; Sergejev, Fjodor** Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 680-687 : ill

### **Correlation between surface fatigue and microstructural defects of cemented carbides**

**Sergejev, Fjodor; Preis, Irina; Kübarsepp, Jakob; Antonov, Maksim** Wear 2007 / 9, p. 770-774 : ill

### **Correlation between surface fatigue and microstructural defects of cemented carbides**

**Sergejev, Fjodor; Preis, Irina; Kübarsepp, Jakob; Antonov, Maksim** NORDTRIB 2006 : 12th Nordic Symposium in Tribology : Helsingor, Denmark, 7-9 June 2006 2006 / p. 68

### **Correlation between surface fatigue and microstructural defects of cemented carbides : experimental validation**

**Sergejev, Fjodor; Preis, Irina; Kübarsepp, Jakob** Book of abstracts : International Symposium on Fatigue Design and Material Defects : Trondheim, Norway, 23-25 May 2011 2011 / p. 32-33

### **Cyclic loading of TiCN coating by Vickers indentation**

**Saarna, Mart; Lind, Liina; Peetsalu, Priidu; Sergejev, Fjodor** Engineering materials and tribology XXV 2017 / p. 425-429  
<https://doi.org/10.4028/www.scientific.net/KEM.721.425> Conference proceedings at Scopus Article at Scopus

### **Determination of modulus of elasticity, nanohardness and residual stresses in brush-plated gold and silver coatings on copper substrate**

Lille, Harri; Kõo, Jakob; Rjabtšikov, Aleksander; **Veinthal, Renno; Mikli, Valdek; Sergejev, Fjodor** Materials science = Medžiagotyra 2012 / p. 51-56 : ill

[https://www.researchgate.net/publication/266348938\\_Determination\\_of\\_Modulus\\_of\\_Elasticity\\_Nanohardness\\_and\\_Residual\\_Stresses\\_in\\_Brush-plated\\_Gold\\_and\\_Silver\\_Coatings\\_on\\_Copper\\_Substrate](https://www.researchgate.net/publication/266348938_Determination_of_Modulus_of_Elasticity_Nanohardness_and_Residual_Stresses_in_Brush-plated_Gold_and_Silver_Coatings_on_Copper_Substrate)

### **Determination of the mechanical properties of carbide composites by spherical indentation**

**Sergejev, Fjodor; Petrov, Mihhail; Kübarsepp, Jakob** Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 723-728 : ill

### **Durability of WC-CO hardmetals and TiC-based cermets : investigation of the fatigue mechanics aspects of PM hardmetals and cermets**

**Sergejev, Fjodor** 2010 <https://www.amazon.com/Durability-WC-CO-Hardmetals-TiC-based-Cermets/dp/383645632X>

### **EBSI investigation of microstructure and microtexture evolution on additively manufactured TiC-Fe based cermets—Influence of multiple laser scanning**

**Maurya, Himanshu Singh; Vikram, R. J.; Kumar, Rahul, 1993-; Rahmani Ahranjani, Ramin; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Micron 2024 / art. 103613 <https://doi.org/10.1016/j.micron.2024.103613> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

### **Effect of carbide phase and binder chemical composition on surface fatigue of carbide composites [Electronic resource]**

**Petrov, Mihhail; Kübarsepp, Jakob; Sergejev, Fjodor; Viljus, Mart** Euro PM2015 Congress & Exhibition : proceedings : 4-7 October 2015, Reims Congress Centre, Reims, France 2015 / [6] p. : ill. [USB]

### **Effect of high-force impulse loads on the modification of mechanical properties of heat-resistant steel after service**

**Chausov, Mykola; Maruschak, Pavlo; Pylypenko, Andriy; Sergejev, Fjodor** Student, Oleksandra Estonian journal of engineering 2012 / p. 251-258 : ill

### **Effect of microstructure and residual stresses on the wear resistance and durability of steel bonded TiC cermets**

**Sergejev, Fjodor; Klaasen, Heinrich; Kübarsepp, Jakob; Traksmäa, Rainer** Abstracts of International Conference on Fatigue Damage of Structural Materials - ICFDSM VIII, 18-24 September 2010 2010 / [1] p

### **Effect of powder bed preheating on the crack formation and microstructure in ceramic matrix composites fabricated by laser powder-bed fusion process**

**Maurya, Himanshu Singh; Kosiba, Konrad; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Additive manufacturing 2022 / art. 103013, 13 p. : ill <https://doi.org/10.1016/j.addma.2022.103013> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

### **Effect of preheating and cooling of the powder bed by laser pulse shaping on the microstructure of the TiC based cermets**

**Maurya, Himanshu Singh; Kollo, Lauri; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Ceramics international 2022 / p. 20612-20618 <https://doi.org/10.1016/j.ceramint.2022.04.029> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

### **Effect of residual stresses on the surface fatigue of TiC-based carbide composites**

**Sergejev, Fjodor; Klaasen, Heinrich; Kübarsepp, Jakob** Proceedia engineering 2011 / p. 3152-3161 : ill

### **Effect of sintering method on surface fatigue of carbide composites**

**Petrov, Mihhail; Kübarsepp, Jakob; Sergejev, Fjodor; Viljus, Mart; Tarraste, Marek** Engineering materials and tribology XXV 2017 / p. 368-372 : ill <https://doi.org/10.4028/www.scientific.net/KEM.721.368> Journal metrics at Scopus Article at Scopus

### **Effect of the laser processing parameters on the selective laser melting of TiC–Fe-based cermets**

**Maurya, Himanshu Singh; Kollo, Lauri; Tarraste, Marek; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss**

Journal of manufacturing and materials processing 2022 / art. 35, 11 p. : ill <https://doi.org/10.3390/jmmp6020035> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Ei meelita ka 3000-eurone palk. Eestis valitseb tõsine inseneride puudus**

Kübarsepp, Iris; Jõesaar, Jete-Ri [delfi.ee](https://delfi.ee) 2024 [Ei meelita ka 3000-eurone palk. Eestis valitseb tõsine inseneride puudus](#)

### **Ei ole uus maja, ega ka uus õppeasutus. Terje Haidak tutvustab uut haridusprojekti nimega Inseneriakadeemia**

**Haidak, Terje** [digi.geenius.ee](https://digi.geenius.ee) 2024 [Ei ole uus maja, ega ka uus õppeasutus. Terje Haidak tutvustab uut haridusprojekti nimega Inseneriakadeemia](#) [INSENERIAKADEEMIA ON HOO SISSE SAANUD](#)

### **Enhancing project-based learning through the integration of computer aided manufacturing and metal shaping technologies courses**

**Pohlak, Meelis; Kase, Kärt; Sergejev, Fjodor; Pahk, Liisa** Futureproofing Engineering Education for Global Responsibility :

Proceedings of the 27th International Conference on Interactive Collaborative Learning (ICL 2024) ; vol. 3 2025 / p. 430-441

[https://doi.org/10.1007/978-3-031-83523-0\\_40](https://doi.org/10.1007/978-3-031-83523-0_40)

### **Estimation of buttons resistance to rock drilling using laboratory surface fatigue test**

**Antonov, Maksim; Karlsson, L.; Sergejev, Fjodor; Hussainova, Irina** Proceedings of 37th Leeds-Lyon symposium on Tribology : Leeds, 7th-10th September 2010 2010 / [1] p

### **Estimation of the endurance limit of cemented carbides based on pore size**

**Preis, Irina; Gray, Marquis; Sergejev, Fjodor** Proceedings of Fatigue 2006, the 9th International Fatigue Congress : Atlanta, GA, 14-19 May 2006 2006 / [9] p. : ill

### **Evaluation of mechanical properties and residual stresses of hard PVD coatings**

**Gregor, Andre; Lille, Harri; Kõo, Jakob; Sergejev, Fjodor; Traksmäa, Rainer; Sivitski, Alina; Kulu, Priit** 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 34

### **Experimental analysis of end mill axis inclination and its influence on 3D areal surface texture parameters**

**Logins, Andris; Rosado Castellano, Pedro; Torims, Toms; Gutierrez, Santiago C.; Sergejev, Fjodor** Proceedings of the Estonian

Academy of Sciences 2017 / p. 194-201 : ill <https://doi.org/10.3176/proc.2017.2.09> [http://www.ester.ee/record=b2355998\\*est](http://www.ester.ee/record=b2355998*est)

[https://artiklid.elnet.ee/record=b2820942\\*est](https://artiklid.elnet.ee/record=b2820942*est) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Fatigue mechanics of carbide composites**

**Sergejev, Fjodor; Klaasen, Heinrich; Kübarsepp, Jakob; Preis, Irina** International journal of materials & product technology 2011 / p. 140-163 : ill

### **Fatigue mechanics of TiC-based cemented carbides**

**Sergejev, Fjodor; Preis, Irina; Hussainova, Irina; Kübarsepp, Jakob** Proceedings of the Institution of Mechanical Engineers. Part J, Journal of engineering tribology 2008 / p. 201-209 : ill <http://dx.doi.org/10.1243/13506501JET342>

### **Fatigue performance of carbide composites**

**Klaasen, Heinrich; Kübarsepp, Jakob; Preis, Irina; Sergejev, Fjodor** EURO PM2005 : congress & exhibition : 2-5 October 2005, Prague, Czech Republic : proceedings. Volume 1 2005 / p. 323-328 : ill

### **Fatigue strength prediction of carbide composites by considering pores to be equivalent to small defects : effect of hot isostatic pressing**

**Sergejev, Fjodor; Preis, Irina; Kübarsepp, Jakob** Book of abstracts : International Symposium on Fatigue Design and Material Defects : Trondheim, Norway, 23-25 May 2011 2011 / p. 41-42

### **Fjodor Sergejev: insenerid on tuleviku loojad**

**Sergejev, Fjodor** 2025

### **Fjodor Sergejev: majandus ei kasva, kui meil pole nutikaid insenere**

**Sergejev, Fjodor** [err.ee](https://www.err.ee/1609714272/fjodor-sergejev-majandus-ei-kasva-kui-meil-pole-nutikaid-insenere) 2025 <https://www.err.ee/1609714272/fjodor-sergejev-majandus-ei-kasva-kui-meil-pole-nutikaid-insenere>

### **Formation of property gradient in coarse-grained niobium using a wedge tool : experiment and analysis**

**Tarasov, Oleksandr; Kübarsepp, Jakob; Viljus, Mart; Saarna, Mart; Sergejev, Fjodor** International journal of refractory metals and hard materials 2024 / art. 106905 <https://doi.org/10.1016/j.jrmhm.2024.106905> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Forming ability of the WC-based ceramic metal composites with different Fe-based binders by unique laser beam**



modulation

**Maurya, Himanshu Singh; Juhani, Kristjan; Sergejev, Fjodor; Kumar Yadav, Mayank; Hussain, Abrar; Prashanth, Konda Gokuldoss** Next Materials 2025 / art. 100524 <https://doi.org/10.1016/j.nxmte.2025.100524>

**Fracture toughness of ceramics fired at different temperatures**

Sin, Peter; **Veinthal, Renno; Sergejev, Fjodor; Antonov, Maksim**; Stubna, Igor Materials science = Medžiagotyra 2012 / p. 90-92 : ill [https://www.researchgate.net/publication/268257498\\_Fracture\\_Toughness\\_of\\_Ceramics\\_Fired\\_at\\_Different\\_Temperatures](https://www.researchgate.net/publication/268257498_Fracture_Toughness_of_Ceramics_Fired_at_Different_Temperatures)

**Head lõpetajad! = Dear graduates!**

**Land, Tiit; Sergejev, Fjodor; Jervan, Gert; Salupere, Andrus; Listra, Enn; Leiger, Roomet** Mente et Manu 2021 / lk. 30-50 : fot [https://www.ester.ee/record=b1242496\\*est](https://www.ester.ee/record=b1242496*est)

**High-temperature oxidation resistance and tribological properties of Al<sub>2</sub>O<sub>3</sub>/ta-C coating**

**Alamgir, Asad; Bogatov, Andrei**; Jõgiaas, Taivo; **Viljus, Mart; Raadik, Taavi; Kübarsepp, Jakob; Sergejev, Fjodor**; Lümkmann, Andreas; Kluson, Jan; **Podgurski, Vitali** Coatings 2022 / art. 547 <https://doi.org/10.3390/coatings12040547> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**High-temperature tribological performance of Al<sub>2</sub>O<sub>3</sub>/a-C:H:Si coating in ambient air**

**Podgurski, Vitali; Alamgir, Asad; Yashin, Maxim**; Jõgiaas, Taivo; **Viljus, Mart; Raadik, Taavi; Danilson, Mati; Sergejev, Fjodor**; Lümkmann, Andreas; Kluson, Jan; Sondor, Jozef; **Bogatov, Andrei** Coatings 2021 / art. 495, 15 p. : ill <https://doi.org/10.3390/coatings11050495> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**High-temperature tribological performance of hard multilayer TiN-AlTiN/nAlCo-CrN/AlCrN-AlCrO-AlTiCrN coating deposited on WC-Co substrate**

**Alamgir, Asad; Yashin, Maxim; Bogatov, Andrei; Viljus, Mart; Traksmäa, Rainer**; Sondor, Jozef; Lümkmann, Andreas; **Sergejev, Fjodor; Podgurski, Vitali** Coatings 2020 / art. 909, 10 p. : ill <https://doi.org/10.3390/coatings10090909> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Hooga avastatud inseneeria nõuab uut suhtumist**

**Sergejev, Fjodor** Trialoog 2025 <https://trialoog.taltech.ee/hooga-avastatud-inseneeria-nouab-uut-suhtumist/>

**Indentation method application for cracking resistance evaluation of hard coatings on tool steels**

**Sivitski, Alina; Gregor, Andre; Saarna, Mart; Kulu, Priit; Sergejev, Fjodor** 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATTRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 51

**Impact and sliding wear properties of single layer, multilayer and nanocomposite physical vapour deposited (PVD) coatings on the plasma nitrided low-alloy 42CrMo4 steel**

**Surženkov, Andrei; Adoberg, Eron; Põdra, Priit; Sergejev, Fjodor; Mere, Arvo; Viljus, Mart; Mikli, Valdek; Antonov, Maksim; Kulu, Priit** Engineering materials and tribology 2013 / p. 223-228 : ill

**The impact of microstructural refinement on the tribological behavior of niobium processed by Indirect Extrusion Angular Pressing**

**Omranpour Shahreza, Babak**; Hernandez-Rodriguez, Marco A. L.; Hernandez-Rodriguez, Edgar; **Kommel, Lembit; Sergejev, Fjodor** Tribology international 2022 / art. 107412 <https://doi.org/10.1016/j.triboint.2021.107412> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Impact of Nb content on the morphology and properties of Ti (C0.5N0.5)-FeCrMo-based green cermets**

**Maurya, Himanshu Singh; Tarraste, Marek; Viljus, Mart; Juhani, Kristjan; Sergejev, Fjodor; Kübarsepp, Jakob** Ceramics international 2024 / 10 p <https://doi.org/10.1016/j.ceramint.2024.11.188>

**Impact wear performance of thin hard coatings on TiC cermets**

**Veinthal, Renno; Sergejev, Fjodor**; Yaldiz, Can Emrah; **Mikli, Valdek** 18th IFHTSE Congress : 2010 July 26th to 30th, Rio de Janeiro, Brazil 2010 / p. 5046-5056 : ill. [CD-ROM]

**Impact wear performance of thin hard coatings on TiC cermets**

**Veinthal, Renno; Sergejev, Fjodor**; Yaldiz, Can Emrah; **Mikli, Valdek** Journal of ASTM International 2011 / [10] p

**Industrial sustainable fabrication, SEM characterization, mechanical testing, ANOVA analysis of PP-PETF recycled composites : artificial intelligence and deep learning studies for nuclear shielding applications**

**Hussain, Abrar; Goljandin, Dmitri; Podgurski, Vitali; Yörük, Can Rüstü; Sergejev, Fjodor; Kübarsepp, Jakob; Maurya, Himanshu Singh**; Rahmani Ahranjani, Ramin European polymer journal 2024 / art. 113082 <https://doi.org/10.1016/j.eurpolymj.2024.113082> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Influence of laser hardening to the sliding wear resistance of the PVD (Al,Ti)N-G and nAlCo® coatings**

**Surženkov, Andrei; Adoberg, Eron; Antonov, Maksim; Sergejev, Fjodor; Mikli, Valdek; Viljus, Mart; Latokartano, Jyrki; Kulu, Priit** Engineering materials & tribology XXII 2014 / p. 28-31 <https://doi.org/10.4028/www.scientific.net/KEM.604.28> [Conference](#)

**Influence of strong carbide-forming elements (Nb and Ta) on the development of the green (Ti, Me)(C,N)-high chromium Fe-based cermets**

**Maurya, Himanshu Singh; Juhani, Kristjan; Tarraste, Marek; Viljus, Mart; Kumar, Rahul, 1993-; Hussain, Abrar; Sergejev, Fjodor; Kübarsepp, Jakob** Vacuum 2024 / art. 113723, 12 p <https://doi.org/10.1016/j.vacuum.2024.113723> [Journal metrics at Scopus](#)  
[Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Inseneriteaduskond võimestab koostööd ettevõtetega**

**Mätlik, Eva-Liina** TööstusEST 2025 / lk. 9 [https://www.ester.ee/record=b4481084\\*est](https://www.ester.ee/record=b4481084*est)

**Inseneriteaduskonna dekaan: noori insenere ei tasu liiga vara koolipingist tööle meelitada, Leedu ajab õiget asja**

Puusild, Harro toostusuudised.ee 2023 [Inseneriteaduskonna dekaan: noori insenere ei tasu liiga vara koolipingist tööle meelitada, Leedu ajab õiget asja](#)

**Investigation of residual stresses and some elastic properties of brush-plated gold and silver galvanic coatings**

Lille, Harri; Kõo, Jakob; Rjabtšikov, Aleksander; Reitsnik, Renno; **Veinthal, Renno; Mikli, Valdek; Sergejev, Fjodor** Engineering materials and tribology 2013 / p. 125-130 : ill

**Investigation of some properties of brush-plated gold and silver galvanic coatings**

Lille, Harri; Kõo, Jakob; Ryabchikov, Alexander; Reitsnik, Renno; **Mikli, Valdek; Sergejev, Fjodor** Proceedings of the 2nd International Conference Optimization and Analysis of Structures : Tartu, Estonia, August 25-27, 2013 2013 / p. 101-107 : ill

**Investigation of the fatigue mechanics aspects of PM hardmetals and cermets = Pulberkövasulamite ja -kermiste väsimusmehaanika aspektide uurimine**

**Sergejev, Fjodor** 2007 [https://www.ester.ee/record=b2350243\\*est](https://www.ester.ee/record=b2350243*est)

**Investigation of the surface fatigue of carbide composites and PVD hard coatings**

**Sergejev, Fjodor; Antonov, Maksim; Gregor, Andre; Hussainova, Irina; Kulu, Priit; Kübarsepp, Jakob** Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [2] 2008 / p. 543-548 : ill  
<http://innomet.ttu.ee/daaam08/online/Materials%20Engineering/Sergejev.pdf>

**Investigation of the tribological behavior of the additively manufactured TiC-based cermets by scratch testing**

**Maurya, Himanshu Singh; Jayaraj, Jayamani; Wang, Z.; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Journal of alloys and compounds 2023 / art. 170496, 9 p. : ill <https://doi.org/10.1016/j.jallcom.2023.170496> [Journal metrics at Scopus](#)  
[Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**12 uut positsiooni**

**Salupere, Andrus; Sergejev, Fjodor; Kallaste, Kadri; Pihel, Hele-Riin; Tärnov, Külle; Anton, Maia-Liisa; Annus, Ivar; Kanger, Tõnis; Kerikmäe, Tanel; Illing, Sven; Uutar, Aivar** Mente et Manu 2020 / lk. 54-59 : portr [https://www.ester.ee/record=b1242496\\*est](https://www.ester.ee/record=b1242496*est)  
<https://dea.digar.ee/article/AKmenteetmanu/2020/09/0/21.1>

**Kõige kõrgema palgaga insenerialadel on ka suurim töökäte puudus**

**Annus, Ivar; Sergejev, Fjodor; Voll, Hendrik** postimees.ee 2024 [Kõige kõrgema palgaga insenerialadel on ka suurim töökäte puudus](#)

**Local tribo-mechanical properties of TiC-based cermets by nanoindentation**

**Sergejev, Fjodor** Proceedings of 14th Nordic Symposium on Tribology : NORDTRIB 2010 : 08.06-11.06.2010, Storforsen, Sweden 2010 / [8] p. [CD-ROM]

**[Lõpetajad = Graduates]**

**Land, Tiit; Sergejev, Fjodor; Jervan, Gert; Salupere, Andrus; Listra, Enn; Leiger, Roomet** Mente et Manu 2022 / lk. 24-43 : fot [https://www.ester.ee/record=b1242496\\*est](https://www.ester.ee/record=b1242496*est)

**[Lõpetajad = Graduates]**

**Land, Tiit; Sergejev, Fjodor; Jervan, Gert; Salupere, Andrus; Avarmaa, Mari; Leiger, Roomet** Mente et Manu 2023 / lk. 30-49 : fot [https://www.ester.ee/record=b1242496\\*est](https://www.ester.ee/record=b1242496*est)

**[Lõpetajad = Graduates]**

**Land, Tiit; Sergejev, Fjodor; Jervan, Gert; Salupere, Andrus; Avarmaa, Mari; Leiger, Roomet** Mente et Manu 2024 / lk. 28-46 : fot [https://www.ester.ee/record=b1242496\\*est](https://www.ester.ee/record=b1242496*est)

**Materjalitehnika instituut**

**Kulu, Priit; Sergejev, Fjodor** Mehaanikainseneride koolitus 1998-2016 2016 / lk. 92-115 : ill., fot [https://www.ester.ee/record=b4640989\\*est](https://www.ester.ee/record=b4640989*est)

**Mehaanikainseneri käsiraamat**

### **Mehaanikainseneri käsiraamat**

2013 [https://www.ester.ee/record=b3007631\\*est](https://www.ester.ee/record=b3007631*est)

**Mehaanikateaduskonna hetkeseisust ja tulevikust : [ettekanne mehaanikainseneride päeval 27. septembril 2013 TTÜs]**  
**Otto, Tauno; Sergejev, Fjodor** Tallinna Tehnikaülikooli aastaraamat 2013 2014 / lk. 191-193

### **Mehhanotehnika ja metallide käsiraamat**

2012 [http://www.ester.ee/record=b2860365\\*est](http://www.ester.ee/record=b2860365*est)

### **Metrosert saab riigilt seni ülikoolides tehtud teadusmahuka arendustöö**

Alvela, Ain tootusest.ee 2025 <https://tootusest.ee/uudis/2025/05/09/metrosert-saab-riigilt-seni-ulikoolides-tehtud-teadusmahuka-arendustoo/>

### **Microstructural aspects of fatigue mechanics of hardmetals and cermets**

**Preis, Irina; Sergejev, Fjodor** Macchine Utensili 2004 / July, p. 66-70

### **Microstructural evolution and mechanical properties of Ti(C,N)–FeCrMo-based green cermets**

**Maurya, Himanshu Singh; Juhani, Kristjan; Viljus, Mart; Sergejev, Fjodor; Kübarsepp, Jakob** Ceramics international 2024 / p. 8695-8705 <https://doi.org/10.1016/j.ceramint.2023.12.186> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Murakami approach : fatigue strength prediction of cemented carbides by considering pores to be equivalent to small defects**

**Sergejev, Fjodor; Preis, Irina; Klaasen, Heinrich; Kübarsepp, Jakob** EURO PM2005 : congress & exhibition : 2-5 October 2005, Prague, Czech Republic : proceedings. Volume 1 2005 / p. 335-340 : ill

### **New high frequency surface fatigue wear tester : design and first results**

**Antonov, Maksim; Kulu, Priit; Sergejev, Fjodor; Hussainova, Irina; Veinthal, Renno** Proceedings of Nordtrib 2008 : 13th Nordic Symposium on Tribology : Tampere, Finland, 10-13 June, 2008 2008 / p. NT2008-87-24  
[https://www.researchgate.net/publication/288482524\\_New\\_high\\_frequency\\_surface\\_fatigue\\_wear\\_tester\\_Design\\_and\\_first\\_results](https://www.researchgate.net/publication/288482524_New_high_frequency_surface_fatigue_wear_tester_Design_and_first_results)

### **Noore inseneri programm (NIP) levitab tehnikapisikut**

**Sergejev, Fjodor; Pook, Ghita** Mente et Manu 2018 / lk. 40 : fot [http://www.ester.ee/record=b1242496\\*est](http://www.ester.ee/record=b1242496*est)  
<http://dea.digar.ee/publication/AKmenteetmanu> [https://www.ttu.ee/public/m/mente-et-manu/MM\\_05\\_2018/mobile/index.html](https://www.ttu.ee/public/m/mente-et-manu/MM_05_2018/mobile/index.html)  
[https://artiklid.elnet.ee/record=b2868939\\*est](https://artiklid.elnet.ee/record=b2868939*est)

### **A novel approach in mechanical nanostructuring synthesis of metal hydride : hydrogen sorption enhancement by High Pressure Torsion Extrusion**

**Omranpour Shahreza, Babak; Ivanisenko, Julia; Sergejev, Fjodor; Omranpour, Hosseinali; Huot, Jacques** International Journal of Hydrogen Energy 2024 / p. 133-142 <https://doi.org/10.1016/j.ijhydene.2023.10.343> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **On determination of residual stresses in some PVD coatings by the curvature method**

Lille, Harri; Ryabchikov, Alexander; Lind, Liina; Sergejev, Fjodor; Adoberg, Eron; Peetsalu, Priidu Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 378-382 : ill

### **Performance of carbide composites in cyclic loading conditions**

**Klaasen, Heinrich; Kübarsepp, Jakob; Roosaar, Tõnu; Sergejev, Fjodor; Talkop, Adolf** International Powder Metallurgy Congress & Exhibition : EURO PM2008 : 29th September - 1st October 2008, Mannheim, Germany : proceedings. Vol.1 2008 / p. 237-242 : ill

### **Performance of carbide composites in cyclic loading wear conditions**

**Klaasen, Heinrich; Kübarsepp, Jakob; Tšinjan, Aleksei; Sergejev, Fjodor** Wear 2011 / p. 837-841 : ill

### **Performance of cemented carbides in cyclic loading conditions**

**Klaasen, Heinrich; Kübarsepp, Jakob; Sergejev, Fjodor; Traksmäa, Rainer** Materials science = Medžiagotyra 2006 / 2, p. 144-146 : ill

### **Performance of cemented carbides in cyclic loading wear conditions**

**Kübarsepp, Jakob; Klaasen, Heinrich; Sergejev, Fjodor** Materials science forum 2007 / Progress in powder metallurgy, p. 1221-1224 : ill

### **Performance of cemented carbides in cyclic loading wear conditions**

**Kübarsepp, Jakob; Klaasen, Heinrich; Sergejev, Fjodor** Progress in powder metallurgy. Part 2, Proceedings of the 2006 Powder Metallurgy World Congress & Exhibition (PM2006), Busan, Korea, September 24-28, 2006 2006 / p. 1221-1224 : ill

### **Performance of cemented carbides in cyclic loading wear conditions**

**Kübarsepp, Jakob; Klaasen, Heinrich; Sergejev, Fjodor** Extended abstracts of 2006 Powder Metallurgy World Congress : Busan, Korea, September 24-28. 2 2006 / p. 887-888

### **Performance of ceramic-metal composites as potential tool materials for friction stir welding of aluminium, copper and stainless steel**

**Kolnes, Mart; Kübarsepp, Jakob; Sergejev, Fjodor; Kolnes, Märt; Tarraste, Marek; Viljus, Mart** Materials 2020 / art. 1994, 18 p. : ill <https://doi.org/10.3390/ma13081994> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Performance of ceramic-metal composites as tool materials for friction stir welding = Keraamilis-metalsed komposiidid otshõõrdkeevituse tööriista materjalidena**

**Kolnes, Mart** 2020 [https://www.ester.ee/record=b5391663\\*est](https://www.ester.ee/record=b5391663*est) <https://digikogu.taltech.ee/et/Item/407d051a-6584-41fe-8c27-2ddcbcd8d902>

### **A promising approach to solid-state hydrogen storage : mechanical nanostructuring synthesis of magnesium by high pressure torsion extrusion**

**Omranpour Shahreza, Babak; Sergejev, Fjodor; Ivanisenko, Julia; Huot, Jacques** Advances in science and technology (volume 134). Materials Engineering and Modern Manufacturing, MeMM 2023 : Selected peer-reviewed extended articles based on abstracts presented at the 30th International Baltic Conference "Materials Engineering and Modern Manufacturing 2023", MeMM 2023. Materials science forum 2023 / p. 43-51 <https://doi.org/10.4028/p-4ccBoQ>

### **Properties and performance of hard coatings on tool steels under cyclic indentation**

**Sivitski, Alina; Gregor, Andre; Saarna, Mart; Kulu, Priit; Sergejev, Fjodor** Acta mechanica Slovaca 2009 / p. 84-94 : ill

### **Punch lifetime in fine-blanking with optimum combination of mechanical properties**

**Veinthal, Renno; Peetsalu, Priidu; Saarna, Mart; Sergejev, Fjodor** European Conference on Heat Treatment and 22nd IFHTSE Congress : Heat Treatment and Surface Engineering from tradition to innovation : Venice (Italy), 20-22 May 2015 2015 / [7] p

### **Relaxation of residual stresses in brush-plated gold and silver coatings on copper and on brass substrates**

Lille, Harri; Kõo, Jakob; Ryabchikov, Alexander; Reitsnik, Renno; **Sergejev, Fjodor; Dong, Minjie** Residual stresses IX 2014 / p. 866-871 : ill <https://doi.org/10.4028/www.scientific.net/AMR.996.866> [Article at Scopus](#) [Article at WOS](#)

### **Residual stresses in TiC-based cermets measured by indentation**

**Sergejev, Fjodor; Kimmari, Eduard; Viljus, Mart** Procedia engineering 2011 / p. 2873-2881 : ill <https://www.sciencedirect.com/science/article/pii/S1877705811006655>

### **Residual stresses on various PVD hard coatings on tube and plate substrates**

Lille, Harri; Ryabchikov, Alexander; **Peetsalu, Priidu; Lind, Liina; Sergejev, Fjodor; Mikli, Valdek; Kübarsepp, Jakob** Coatings 2020 / art. 1054, 11 p <https://doi.org/10.3390/coatings10111054> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Riiklike tehnikaprofessuuride ees seisab rida väljakutseid**

**Kers, Jaan** TööstusEST 2023 / lk. 32-34 : ill [https://www.ester.ee/record=b4481084\\*est](https://www.ester.ee/record=b4481084*est)

### **Riiklike tehnikaprofessuuride väljakutsed roheleppe, ringmajanduse ja digiteerimise valguses**

**Kers, Jaan** Mente et Manu 2022 / lk. 26-27 [https://www.ester.ee/record=b1242496\\*est](https://www.ester.ee/record=b1242496*est)

### **RUK-i loomine nõrgestab kogu inseneeriavaldkonda**

**Sergejev, Fjodor** TööstusEST 2025 / lk. 16-17 [https://www.ester.ee/record=b4481084\\*est](https://www.ester.ee/record=b4481084*est)

### **Selection of coating systems and processes for different wear conditions**

**Kulu, Priit; Saarna, Mart; Sergejev, Fjodor; Gregor, Andre; Surženkov, Andrei** Proceedings of 14th Nordic Symposium on Tribology : NORDTRIB 2010 : 08.06-11.06.2010, Storforsen, Sweden 2010 / [8] p. [CD-ROM]

### **Selective laser melting of TiC-based cermet : HIP studies**

**Maurya, Himanshu Singh; Kollo, Lauri; Tarraste, Marek; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Transactions of the Indian Institute of Metals 2023 / p. 565-570 : ill <https://doi.org/10.1007/s12666-022-02684-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Selective laser melting of TiC-Fe via laser pulse shaping : microstructure and mechanical properties**

**Maurya, Himanshu Singh; Kollo, Lauri; Tarraste, Marek; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** 3D Printing and Additive Manufacturing 2023 / p. 640-649 <https://doi.org/10.1089/3dp.2021.0221> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Sliding Wear and Debris Evolution in LPBFed Ceramic-Reinforced Steel Composites Under Variable Loads and Temperatures**



**Maurya, Himanshu Singh;** Kumar, Rahul, 1993-; Subramaniyan, Anand Kumar; **Tarraste, Marek; Hussain, Abrar;** Rahmani Ahranjani, Ramin; **Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Materials Chemistry and Physics 2025 / art. 131195 <https://doi.org/10.1016/j.matchemphys.2025.131195>

#### **Strength and failure of TiC based cermets**

**Klaasen, Heinrich; Kübarsepp, Jakob; Sergejev, Fjodor** Powder metallurgy 2009 / 2, p. 111-115 : ill

#### **Surface fatigue and wear of PVD coated punches during fine blanking operation**

**Sergejev, Fjodor; Peetsalu, Priidu; Sivitski, Alina; Saarna, Mart; Adoberg, Eron** Engineering failure analysis 2011 / p. 1689-1697 : ill

#### **Surface fatigue and wear resistance of thin and thick hard coatings**

**Kulu, Priit; Saarna, Mart; Sergejev, Fjodor; Gregor, Andre; Sivitski, Alina;** Müller, H. IFHTSE International Federation for Heat Treatment and Surface Engineering 18th Congress : July 26-30, 2010, Rio de Janeiro, Brazil : [CD-ROM] 2010  
[https://www.researchgate.net/publication/289598093\\_Surface\\_fatigue\\_and\\_wear\\_resistance\\_of\\_thin\\_and\\_thick\\_hard\\_coatings](https://www.researchgate.net/publication/289598093_Surface_fatigue_and_wear_resistance_of_thin_and_thick_hard_coatings)

#### **Surface fatigue of Al-metal matrix composites at impact loading**

**Saarna, Mart; Sergejev, Fjodor; Gomon, Jaana-Kateriina; Kollo, Lauri;** Leparoux, Marc Engineering materials and tribology 2013 / p. 119-124 : ill

#### **Synergistic effect of Nb and Mo on the microstructural formation of the Ti(C,N)-high chromium ferrous-based cermets**

**Maurya, Himanshu Singh; Juhani, Kristjan; Tarraste, Marek; Viljus, Mart; Sergejev, Fjodor; Pampori, Tabeen Halawat; Hussain, Abrar; Kübarsepp, Jakob** International journal of refractory metals and hard materials 2024 / art. 106723  
<https://doi.org/10.1016/j.ijrmhm.2024.106723> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Tailoring the microstructure and tribological properties in commercially pure aluminium processed by High Pressure Torsion Extrusion**

**Omranpour Shahreza, Babak; Kommel, Lembit; Sergejev, Fjodor; Ivanisenko, Yulia; Antonov, Maksim** Proceedings of the Estonian Academy of Sciences 2021 / p. 540-548 : ill <https://doi.org/10.3176/proc.2021.4.23> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **TalTech ja Onninen sõlmisid ulatusliku koostöölepingu**

goodnews.ee 2023 [TalTech ja Onninen sõlmisid ulatusliku koostöölepingu](#)

#### **TalTechi dekaan: ka tehisintellekt jääb insenerita jänni**

aripaev.ee 2023 [TalTechi dekaan: ka tehisintellekt jääb insenerita jänni](#)

#### **TalTechi inseneriteaduskonna dekaan: tööstus on aastaid olnud IT varjus, aga need kaks valdkonda ei tohi olla konkurendid**

**Sergejev, Fjodor** toostusuudised.ee 2025 [TalTechi inseneriteaduskonna dekaan: tööstus on aastaid olnud IT varjus, aga need kaks valdkonda ei tohi olla konkurendid](#)

#### **TalTechi vilistlased võitlevad uue stipendiumiga inseneride põua vastu**

postimees.ee 2024 [TalTechi vilistlased võitlevad uue stipendiumiga inseneride põua vastu](#)

#### **The effect of microstructure evolution on the wear behavior of tantalum processed by Indirect Extrusion Angular Pressing**

**Omranpour Shahreza, Babak;** Huot, Jacques; **Antonov, Maksim; Kommel, Lembit; Sergejev, Fjodor;** Perez Trujillo, Francisco Javier; Heczal, Anita; Gubicza, Jeno International journal of refractory metals and hard materials 2023 / art. 106079, 11 p. : ill  
<https://doi.org/10.1016/j.ijrmhm.2022.106079> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Tribological behavior of hybrid coatings at extreme conditions = Hübriidpinnete triboloogiline käitumine ekstreemsetes tingimustes**

**Shaikh, Asad Alamgir** 2021 [https://www.ester.ee/record=b5434621\\*est](https://www.ester.ee/record=b5434621*est) <https://digikogu.taltech.ee/et/Item/2b9c25e8-2f7f-46ea-859a-366bf4b7f252> <https://doi.org/10.23658/taltech.33/2021>

#### **TTÜ tehnoloogiline võimekus : (kõrgkoolide laboratoorne baas, teaduse põhitemaatika)**

**Karjust, Kristo; Sergejev, Fjodor** Eesti Masinatööstuse Liit. TTÜ mehaanikateaduskond 80 2016 / lk. 95-121 : ill

#### **Uued professorid TalTechis**

**Durst, Susanne; Partanen, Jenni Vilhelmiina; Kasabov, Edward; Palu, Ivo; Sergejev, Fjodor; Trikkil, Andres; Kalda, Jaan; Aav, Riina** Mente et Manu 2020 / lk. 32-37 : portr [https://www.ttu.ee/public/m/mente-et-manu/MM\\_01\\_2020/mobile/index.html](https://www.ttu.ee/public/m/mente-et-manu/MM_01_2020/mobile/index.html)  
[https://www.ester.ee/record=b1242496\\*est](https://www.ester.ee/record=b1242496*est)

#### **Wear behavior of ceramic-metal composites as tool material for FSW of copper**

**Kolnes, Mart; Kübarsepp, Jakob; Sergejev, Fjodor; Kolnes, Märt; Tarraste, Marek; Viljus, Mart** Solid state phenomena ; 320

**Wear of different PVD coatings at industrial fine-blanking field tests**

Lind, Liina; Peetsalu, Priidu; Sergejev, Fjodor Medžiagotyra = Materials science 2015 / p. 343-348 : ill  
<https://doi.org/10.5755/j01.ms.21.3.7249> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Wear of potential tool materials for aluminium alloys friction stir welding at weld temperatures**

Kolnes, Mart; Kübarsepp, Jakob; Sergejev, Fjodor; Kolnes, Märt Proceedings of the Estonian Academy of Sciences 2019 / p. 198–206 : ill <https://doi.org/10.3176/proc.2019.2.12> [http://www.kirj.ee/public/proceedings\\_pdf/2019/issue\\_2/proc-2019-2-198-206.pdf](http://www.kirj.ee/public/proceedings_pdf/2019/issue_2/proc-2019-2-198-206.pdf) Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

**Wear performance of PVD coated tool steels**

Tšinjan, Aleksei; Klaasen, Heinrich; Kübarsepp, Jakob; Adoberg, Eron; Sergejev, Fjodor; Talkop, Adolf Estonian journal of engineering 2012 / p. 202-210 : ill

**Vickers hardness of ceramics fired at different temperatures**

Šin, P.; Veinthal, Renno; Sergejev, Fjodor; Antonov, Maksim; Stubna, I. Young Researchers 2011, PhD Students, Young Scientists and Pedagogues Conference proceedings : Nitra, Slovakia, 21-22 September 2011 2011 / p. 565-570  
[https://www.researchgate.net/publication/265794312\\_Vickers\\_hardness\\_of\\_ceramics\\_fired\\_at\\_different\\_temperatures](https://www.researchgate.net/publication/265794312_Vickers_hardness_of_ceramics_fired_at_different_temperatures)

**Декан TalTech: нам не хватает студентов технических направлений**

Kraševski, Andrei; Sergejev, Fjodor rus.err.ee 2023 [Декан TalTech: нам не хватает студентов технических направлений](#)

**Летом в Эстонии станет на 583 инженера больше**

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