

Abrasive-erosive wear of thermally sprayed coatings from experimental and commercial Cr₃C₂-based powders

Sarjas, Heikki; **Surženkov, Andrei; Juhani, Kristjan; Antonov, Maksim; Adoberg, Eron; Kulu, Priit; Viljus, Mart; Traksmaa, Rainer**; Matikainen, Ville; Vuoristo, Petri Journal of thermal spray technology 2017 / p. 2020-2029 : ill <https://doi.org/10.1007/s11666-017-0638-2>

Atomic- and magnetic-force microscopy in variable applied magnetic fields on CoFe/IrMn multilayer [Online resource]

Link, Joosep; Stern, Raivo Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p. : ill <http://fntdk.ut.ee/teesid/>

Atomic layer deposition for hard nanocoatings

Jõgiaas, Taivo; **Kollo, Lauri; Hussainova, Irina** Baltic ALD 2014 : 12th International Baltic Conference on Atomic Layer Deposition : May 12-13, 2014, Helsinki, Finland 2014 / p. 91-92

Atomic layer deposition of alumina on g-Al₂O₃ nanofibres

Jõgiaas, Taivo; Arroval, Tõnis; **Kollo, Lauri; Hussainova, Irina** Physica status solidi (a) : applications and materials science 2014 / p. 403-408 : ill

Bacterial polysaccharide levan as stabilizing, non-toxic and functional coating material for microelement-nanoparticles

Bondarenko, Olesja; Ivask, Angela; Kahru, Anne; **Titma, Tiina; Pudova, Ksenia; Adamberg, Signe** Carbohydrate polymers 2016 / p. 710-720 : ill <https://doi.org/10.1016/j.carbpol.2015.09.093>

Comparative analysis of wear rates of microcrystalline diamond and diamond-like carbon coatings deposited on WC-Co substrates

Yashin, Maxim; Bogatov, Andrei; Podgurski, Vitali Engineering materials and tribology XXV 2017 / p. 436-440 : ill <http://dx.doi.org/10.4028/www.scientific.net/KEM.721.436>

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

Lille, Harri; Kõo, Jakub; Ryabchikov, Alexander; Reitsnik, Renno; **Sergejev, Fjodor**; Matvejev, Dmitri Materials science = Medžiagotyra 2016 / p. 36-40 : ill <http://dx.doi.org/10.5755/j01.ms.22.1.7439>

CuInS₂ solar cell absorber plasmonically modified by gold nanoparticles

Repän, Taavi; Dolgov, Leonid; **Katerski, Atanas; Oja Acik, Ilona; Kärber, Erki; Mere, Arvo; Mikli, Valdek; Krunks, Malle**; Sildos, Ilmo Applied physics. A, Materials science & processing 2014 / p. 455-458 : ill

Development and characterization of photo-oxidation efficiency and antibacterial effects of nano-TiO₂ thin films

Joost, Urmas; Visnapuu, Meeri; **Juganson, Katre** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Development of antibiotic-imprinted polymer films on the dextran-modified gold surfaces

Tretjakov, Aleksei; Sõritski, Vitali; Ayankojo, Akinrinade George; Reut, Jekaterina; Öpik, Andres TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Effect of CdCl₂ vapor phase pretreatment annealing on the properties of CSS CdS and CdTe/CdS thin film solar cells

Spalatu, Nicolae; Hiie, Jaan; Valdna, Vello; Krunks, Malle; Caraman, Mihail; **Mikli, Valdek; Maticiu, Natalia** 2014 Spring Meeting Lille, France : May 26-30. Symposium A, Thin film chalcogenide photovoltaic materials 2014 / p. 17

Effect of oxidation on sliding wear behavior of NiCrSiB-TiB₂ plasma sprayed coatings

Umanskii, A.; **Hussainova, Irina**; Storoženko, M.; Terentyev, O.; **Antonov, Maksim** Engineering materials & tribology XXII 2014 / p. 16-19

Effect of solution spray rate on the properties of chemically sprayed ZnO:In thin films

Kriisa, Merike; Krunks, Malle; Kärber, Erki; Kukk, Mart; Mikli, Valdek; Mere, Arvo Journal of nanomaterials 2013 / p. 1-9 : ill

The effect of temperature and sliding speed on friction and wear of Si₃N₄, Al₂O₃, and ZrO₂ balls tested against AlCrN PVD coating

Antonov, Maksim; Afshari, Hossein; Baroninš, Janis; Adoberg, Eron; Raadik, Taavi; Hussainova, Irina Tribology international 2018 / p. 500-514 : ill <https://doi.org/10.1016/j.triboint.2017.05.035> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of TiB₂ additives on wear behavior of NiCrBSi-based plasma-sprayed coatings

Umanskiy, Oleksandr; Storozenko, Maryna; **Hussainova, Irina**; Terentjev, Oleksandr; Kovalchenko, Andrey; **Antonov, Maksim** Materials science = Medžiagotyra 2016 / p. 15-19 : ill <http://dx.doi.org/10.5755/j01.ms.22.1.7307>

Electrochemical behaviour of TiCN and TiAlN gradient coatings prepared by lateral rotating cathode arc PVD technology

Baroninš, Janis; Podgurski, Vitali; Antonov, Maksim; Bereznev, Sergei; Hussainova, Irina Engineering materials and tribology XXV 2017 / p. 414-418 <http://dx.doi.org/10.4028/www.scientific.net/KEM.721.414>

Electrochemical functionalization of gold and silicon surfaces by a maleimide group as a biosensor for immunological application

Zhang, Xin; **Tretjakov, Aleksei**; Hovestädt, Marc; Sun, Guoguang; **Sõritski, Vitali**; **Reut, Jekaterina**; Volkmer, Rudolf; Hinrichs, Karsten; Rappich, Jörg Acta biomaterialia 2013 / p. 5838-5844 : ill

Electrochemical reduction of aryl diazonium salts for ultrathin polymeric layers on au and Si surfaces

Zhang, Xin; **Sõritski, Vitali**; **Reut, Jekaterina** Baltic Polymer Symposium 2013 : Trakai, Lithuania, September 18-21, 2013 : programme [and abstracts] 2013 / p. 29 : ill

Electrodeposited CDSE nanomatrix for hybrid polymer solar cells

Gurevičs, Jelena; **Bereznev, Sergei**; **Mikli, Valdek**; **Naidu, Revathi**; **Öpik, Andres**; **Mellikov, Enn**; **Kois, Julia** Baltic Polymer Symposium 2015 : Sigulda, Latvia, September 16-18 : programme and proceedings 2015 / p. 96 : ill

Electrosynthesized molecularly imprinted polymer films for surface acoustic wave detection of antibiotics

Sõritski, Vitali; **Tretjakov, Aleksei**; **Ayankojo, Akinrinade George**; **Reut, Jekaterina**; **Öpik, Andres** Proceedings of The 8th International Conference on Molecular Imprinting (MIP2014). Session 8 2014 / p. P-015

Emerging challenges for numerical simulations of quasi-static collision experiments on laser-welded thin-walled steel structures

Romanoff, Jani; **Kõrgesaar, Mihkel**; Remes, Heikki Journal of marine science and application 2020 / p. 567-583 : ill
<https://doi.org/10.1007/s11804-020-00174-y> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Enhanced photocatalytic activity of ZnO nanorods by surface treatment with H₂AuCl₄ : synergic effects through an electron scavenging, plasmon resonance and surface hydroxylation

Dedova, Tatjana; **Oja Acik, Ilona**; **Chen, Zengjun**; **Katerski, Atanas**; **Balmassov, Kirill**; **Gromõko, Inga**; Nagyne-Kovacs, T.; Szilagyi, I.M.; **Krunks, Malle** Materials chemistry and physics 2020 / art. 122767 <https://doi.org/10.1016/j.matchemphys.2020.122767>
Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Evolution of TiN coating surface roughness during physical vapor deposition on high speed steel substrate

Kupchenko, Leonid; **Tali, Rauno**; **Adoberg, Eron**; **Mikli, Valdek**; **Podgurski, Vitali** Engineering materials & tribology XXII 2014 / p. 67-70

Growth of zinc oxide nanostructured layers on SnO₂ electrodes by spray pyrolysis

Dedova, Tatjana; **Volobujeva, Olga**; **Gromõko, Inga**; **Mikli, Valdek**; **Mere, Arvo**; **Krunks, Malle** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" 2013 / [1] p

High temperature erosion wear of cermet particles reinforced self-fluxing alloy HVOF sprayed coatings

Surženkov, Andrei; **Goljandin, Dmitri**; **Traksmas, Rainer**; **Viljus, Mart**; **Talviste, Kristofer**; **Aruniit, Aare**; Latokartano, Jyrki; **Kulu, Priit** Medžiagotyra = Materials science 2015 / p. 386-390 : ill <http://dx.doi.org/10.5755/j01.ms.21.3.7617>

High-temperature erosion of Fe-based coatings reinforced with cermet particles

Surženkov, Andrei; **Antonov, Maksim**; **Goljandin, Dmitri**; **Kulu, Priit**; **Viljus, Mart**; **Traksmas, Rainer**; **Mere, Arvo** Surface engineering 2016 / p. 624-630 : ill <http://dx.doi.org/10.1080/02670844.2016.1145377>

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**; **Traksmas, Rainer**; **Sondor, Jozef**; **Lümkemann, Andreas**; **Sergejev, Fjodor**; **Podgurski, Vitali** Coatings 2020 / art. 909, 10 p. : ill <https://doi.org/10.3390/coatings10090909> Journal metrics at WOS Article at Scopus Journal metrics at WOS Article at WOS

Increased efficiency inside the CdTe solar cell absorber caused by plasmonic metal nanoparticles

Repän, Taavi; **Pikker, Siim**; **Dolgov, Leonid**; **Loot, Ardi**; **Hiie, Jaan**; **Krunks, Malle**; **Sildos, Ilmo** Energy procedia 2014 / p. 229-233 : ill

Low temperature time resolved photoluminescence in ordered and disordered Cu₂ZnSnS₄ single crystals

Raadi, Taavi; **Krustok, Jüri**; **Kauk-Kuusik, Marit**; **Timmo, Kristi**; **Grossberg, Maarja**; **Ernits, Kaia**; **Bleuse, J.** Physica B : condensed matter 2017 / p. 47-50 : ill <https://doi.org/10.1016/j.physb.2016.12.011>

Molecularly imprinted polymer based SPR sensors for label-free detection of antibiotics

Tretjakov, Aleksei; **Ayankojo, Akinrinade George**; **Sõritski, Vitali**; **Reut, Jekaterina**; **Öpik, Andres** Recent Developments in Polymer Synthesis : MACRO 2014 : poster presenta[t]ion 2014 / p. 286

Novel WC-Co spray powders and HVOF sprayed coatings on their bases

Sarjas, Heikki; Kulu, Prit; Juhani, Kristjan; Vuoristo, Petri Surface Modification Technologies XXVIII : proceedings of the Twenty Eighth International Conference on Surface Modification Technologies : Tampere University of Technology, Tampere, Finland, June 16-18, 2014 2015 / p. 35-42 : ill

One-stage pulsed laser deposition of conductive zinc oxysulfide layers

Bereznev, Sergei; Kocharyan, Hrachya; **Maticiu, Natalia; Naidu, Revathi; Volobujeva, Olga;** Tverjanovich, Andrey; **Kois, Julia** Applied surface science 2017 / p. 722-727 : ill <https://doi.org/10.1016/j.apsusc.2017.07.078>

Plasmonic control of light in thin film solar cell absorbers

Repän, Taavi; **Katerski, Atanas; Oja Acik, Ilona; Kärber, Erki; Mere, Arvo; Mikli, Valdek; Krunks, Malle;** Dolgov, Leonid; Sildos, Ilmo The International Summer School "Nanotechnology : from fundamental research to innovations" and International research and practice conference "Nanotechnology and nanomaterials" (NANO-2014), 23-30 August, 2014, Yaremche-Lviv, Ukraine : book of abstracts 2014 / p. 494

Plasmonic effect of spray-deposited Au nanoparticles on the performance of CSS CdS/CdTe solar cells

Spalatu, Nicolae; Hiie, Jaan; Maticiu, Natalia; Krunks, Malle; Katerski, Atanas; Mikli, Valdek; Sildos, Ilmo Applied surface science 2015 / p. 69-73 : ill <http://dx.doi.org/10.1016/j.apsusc.2015.04.065>

Plasmonic enhancement of light absorption in CuInS₂ layer doped by gold nanoparticles

Repän, Taavi; **Katerski, Atanas; Oja Acik, Ilona; Kärber, Erki; Mere, Arvo; Mikli, Valdek; Krunks, Malle;** Dolgov, Leonid; Sildos, Ilmo META' 14 - Singapore : The 5th International Conference on Metamaterials, Photonic Crystals and Plasmonics : book of abstracts 2014

Plasmonic TiO₂:Au composite layers deposited in situ by chemical spray pyrolysis

Oja Acik, Ilona; Oyekoya, Gboyega Nathaniel; Mere, Arvo; Loot, Ardi; Dolgov, Leonid; **Mikli, Valdek; Krunks, Malle;** Sildos, Ilmo Surface and coatings technology 2015 / p. 27-31 : ill <http://dx.doi.org/10.1016/j.surfcoat.2015.01.036>

Post-deposition thermal treatment of sprayed SnS films [Online resource]

Polivtseva, Svetlana; Katerski, Atanas; Kärber, Erki; Oja Acik, Ilona; Mere, Arvo; Mikli, Valdek; Krunks, Malle Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

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

Päikesepaneelid seinale ja katusele - las maja ise toodab elektrit!

Einama, Kaido postimees.ee 2022 / lk. 11 : fot [Päikesepaneelid seinale ja katusele – las maja ise toodab elektrit!](#)

Removing the oxide layer in a nanostructured aluminum alloy by local shear deformation between nanoscale phases

Wang, Zhi; **Prashanth, Konda Gokuldoss;** Zhang, W.W. Powder technology 2019 / p. 733-737 : ill <https://doi.org/10.1016/j.powtec.2018.11.093> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Sb₂S₃ õhukesed absorberkihid pool-läbipaistvatele päikesepatareidele

Oja Acik, Ilona; Eensalu, Jako Siim; Katerski, Atanas; Krunks, Malle XXXIV Eesti keemiapäevad : 100. aastapäeva teaduskonverentsi teesid 2019 / lk. 32 https://www.ester.ee/record=b1580289*est

Structure, phase composition, and wear mechanisms of plasma-sprayed NiCrSiB-20wt.% TiB₂ coatings

Umanskii, A.; Storozhenko, M.; **Hussainova, Irina; Antonov, Maksim** Powder metallurgy and metal ceramics 2015 / p. 663-671 : ill <http://dx.doi.org/10.1007/s11106-015-9661-3>

Study of spray-CVD deposited Zn(O,S) films on Mo substrates and application in Cu(In, Ga)(S, Se)₂ solar cells as buffer layers

Kriisa, Merike; Fischer, Christian-Herbert; **Krunks, Malle** TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Study of Zn(O,S) films grown by aerosol assisted chemical vapour deposition and their application as buffer layers in Cu(In,Ga)(S,Se)₂ solar cells

Kriisa, Merike; Saez-Araoz, Rodrigo; **Kärber, Erki; Krunks, Malle** Solar energy 2015 / p. 562-568 : ill <http://dx.doi.org/10.1016/j.solener.2015.02.046>

Surface wetting properties of electrodeposited and sprayed ZnO nanorod layers [Online resource]

Gromöko, Inga; Krunks, Malle; Dedova, Tatjana; Katerski, Atanas; Klauson, Deniss; Oja Acik, Ilona Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

Synthesis and electrophysical properties of nanometric CdS layers deposited on SnO₂-coated glass substrates by pulverization method

Botnariuc, V.; Gorceac, L.; **Mikli, Valdek** Journal of nanoelectronics and optoelectronics 2013 / p. 744-749

Synthesis of Cu₂ZnSnS₄ solar cell absorber material by sol-gel method

Kumar, Suresh; Kasubosula, Bharath; Looerts, Mihkel; Raudoja, Jaan; Mikli, Valdek; Altosaar, Mare; Grossberg, Maarja Energy procedia 2016 / p. 102-109 : ill <https://doi.org/10.1016/j.egypro.2016.11.324>

Zinc oxide rods on different TCO substrates and seed layers by electrochemical deposition

Gromōko, Inga; Dedova, Tatjana; Krunks, Malle; Mikli, Valdek; Unt, Tarmo; Oja Acik, Ilona; Mere, Arvo Proceedings of the 11th International Conference of Young Scientists on Energy Issues : CYSENI 2014 : May 29-30, 2014, Kaunas, Lithuania 2014 / p. VII-298-VII-305

ZnS buffer layer for Cu₂ZnSn(SSe)₄ monograin layer solar cell

Nguyen, Mai; Ernits, Kaia; **Meissner, Dieter** Solar energy 2015 / p. 344-349 : ill <http://dx.doi.org/10.1016/j.solener.2014.11.006>

The effect of low-friction PVD coatings on scuffing and pitting resistance of spur gears

Michalczewski, Remigiusz; Szczerek, Marian; Tuszyński, Waldemar; Wulczyński, Jan; **Antonov, Maksim** Tribologia : teoria i praktyka 2013 / p. 55-66 : ill

The influence of alumina and zirconia coats on the tribological properties of alumina nanofibers

Aghayan, Marina; Gasik, Michael; Kollo, Lauri; Hussainova, Irina; Rodriguez, Miguel Angel CIMTEC 2014 : 13th International Ceramics Congress : Montecatini Terme, Tuscany, Italy, June 8-13, 2014 : book of abstracts 2014

Thermoanalytical study of precursors for SnS thin films deposited by chemical spray pyrolysis method

Polivtseva, Svetlana; Oja Acik, Ilona; Tõnsuaadu, Kaia; Mere, Arvo; Krunks, Malle ESTAC-11 : the 11th European Symposium on Thermal Analysis and Calorimetry : Dipoli Congress Center, Espoo, Finland, August 17-21, 2014 : abstracts 2014 / p. 86

Ultra thin TiO₂ films with gold nanoparticles by the chemical spray pyrolysis method

Oja Acik, Ilona; Oyekoya, G.; Dedova, Tatjana; Mikli, Valdek; Mere, Arvo; Krunks, Malle; Dolgov, Leonid; Sildos, Ilmo Joint 12th Russia/CIS/Baltic/Japan Symposium on Ferroelectricity and 9th International Conference Functional Materials and Nanotechnologies : Institute of Solid State Physics, University of Latvia, September 29-October 2, Riga, Latvia : book of abstracts 2014 / p. 296

Vibration-assisted sputter coating of cenospheres : a new approach for realizing Cu-based metal matrix syntactic foams

Shishkin, Andrei; **Drozdova, Maria; Kozlov, Viktor; Hussainova, Irina; Lehmkus, Dirk** Metals 2017 / art. 16, p. 1-10 : ill <http://dx.doi.org/10.3390/met7010016>

Структурно-фазовый состав и механизмы изнашивания плазменного покрытия системы NiCrSiB-20% (мас.) TiB₂

Umanskii, A.; Storoženko, M.; **Hussainova, Irina; Antonov, Maksim** Порошковая металлургия = Powder metallurgy : ежемесячный научно-технический журнал 2014 / с. 57-68