

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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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://fmtdk.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 <https://doi.org/10.1002/pssa.201330083> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 2015 / p. 710-720 : ill <https://doi.org/10.1016/j.carbpol.2015.09.093> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 <https://doi.org/10.4028/www.scientific.net/KEM.721.436> [Conference proceedings at Scopus](#) [Article at Scopus](#)

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](#)

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 <https://doi.org/10.1007/s00339-014-8681-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 <https://doi.org/10.4028/www.scientific.net/KEM.604.16> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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 <https://doi.org/10.1155/2013/423632> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Umanskyi, Oleksandr; Storozhenko, Maryna; **Hussainova, Irina**; Terentjev, Oleksandr; Kovalchenko, Andrey; **Antonov, Maksim** Materials science = Medžiagotyra 2016 / p. 15-19 : ill <https://doi.org/10.5755/j01.ms.22.1.7307> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Conference Proceedings at WOS](#) [Article at WOS](#)

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 <https://doi.org/10.4028/www.scientific.net/KEM.721.414> [Journal metrics at Scopus](#) [Article at Scopus](#)

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; **Söritski, Vitali**; **Reut, Jekaterina**; Volkmer, Rudolf; Hinrichs, Karsten; Rappich, Jörg Acta biomaterialia 2013 / p. 5838-5844 : ill <https://doi.org/10.1016/j.actbio.2012.10.022> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Zhang, Xin; **Söritski, 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**; **Melikov, 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

Söritski, 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; **Körgešaar, 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**; **Gromöko, Inga**; Nagyne-Kovacs, T.; Szilagi, 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 <https://doi.org/10.4028/www.scientific.net/KEM.604.67> [Conference proceedings at Scopus](#) [Article at Scopus](#)

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

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

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

Surženkov, Andrei; **Goljandin, Dmitri**; **Traksmaa, Rainer**; **Viljus, Mart**; **Talviste, Kristofer**; **Aruniit, Aare**; Latokartano, Jyrki; **Kulu, Priit** Medžiagotyra = Materials science 2015 / p. 386-390 : ill <https://doi.org/10.5755/j01.ms.21.3.7617> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Surženkov, Andrei; **Antonov, Maksim**; **Goljandin, Dmitri**; **Kulu, Priit**; **Viljus, Mart**; **Traksmaa, Rainer**; **Mere, Arvo** Surface engineering 2016 / p. 624-630 : ill <https://doi.org/10.1080/02670844.2016.1145377> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Alamgir, Asad; **Yashin, Maxim**; **Bogatov, Andrei**; **Viljus, Mart**; **Traksmaa, 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 <https://doi.org/10.1016/j.egypro.2013.12.032> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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

Raadik, 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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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, Priit; 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; Maticiuc, 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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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; Maticiuc, Natalia; Krunks, Malle; Katerski, Atanas; Mikli, Valdek; Sildos, Ilmo Applied surface science 2015 / p. 69-73 : ill <https://doi.org/10.1016/j.apsusc.2015.04.065> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 <https://doi.org/10.1016/j.surfcoat.2015.01.036> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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://fmdk.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 <https://doi.org/10.1007/s11106-015-9661-3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

<https://doi.org/10.1016/j.solener.2015.02.046> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Gromõko, 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**; **Loorits, 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> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

[Article at WOS](#)

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

Gromõko, 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**; Lehmus, Dirk Metals 2017 / art. 16, p. 1-10 : ill

<https://doi.org/10.3390/met7010016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

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