

Abrasion of WC based hardmetals

Voltšihhin, Nikolai; Hussainova, Irina; Antonov, Maksim ECOTRIB 2011 : 3rd European Conference on Tribology and 4th Vienna International Conference on Nano-Technology : June 7-9, 2011, Vienna, Austria. 1 2011 / p. 229-232

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; Traksmäa, 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](#)

Adaptation of Laboratory tests for the assessment of wear resistance of drill-bit inserts for rotary-percussive drilling of hard rocks

Saari, Afaf; Bjorge, Ruben; Dahl, Filip; **Antonov, Maksim** Wear 2020 / art. 203366, 10 p. : ill <https://doi.org/10.1016/j.wear.2020.203366> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Adhesion of AlCrN coating deposited on TiB₂/Ti composites sintered by SPS dedicated for high temperature tribological applications

Michalczewski, Remigiusz; Kalbarczyk, M.; Slomka, Z.; **Hussainova, Irina; Liu, Le; Antonov, Maksim** IOP conference series : materials science and engineering 2021 / art. 012010, 9 p <https://doi.org/10.1088/1757-899X/1140/1/012010>

Advanced cermets as tribomaterials

Hussainova, Irina; Antonov, Maksim; Kübarsepp, Jakob Proceedings of the 5th World Tribology Congress : WTC13 : September 8-13, 2013, Torino, Italy 2013

Advanced multifunctional materials and their applications

Antonov, Maksim; Hussainova, Irina; Kers, Jaan; Kulu, Priit; Kübarsepp, Jakob; Veinthal, Renno Research in Estonia : present and future 2011 / p. 146-167

Analysis of microstructure and abrasive wear of Fe-based hardfacings with TiC, in-situ synthesized from TiO₂

Yöyler, Sibel; Surzhenkov, Andrei; Antonov, Maksim; Viljus, Mart; Traksmäa, Rainer; Juhani, Kristjan Euro PM2023 : proceedings 2023 / art. 195090 <https://doi.org/10.59499/EP235762969>

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>

Applications of recycled hardmetal powder

Zimakov, Sergei; Pihl, Toomas; Kulu, Priit; Antonov, Maksim; Mikli, Valdek Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 43-44

Applications of recycled hardmetal powder

Zimakov, Sergei; Pihl, Toomas; Kulu, Priit; Antonov, Maksim; Mikli, Valdek Proceedings of the Estonian Academy of Sciences. Engineering 2003 / 4, p. 304-316 : ill

Assessment of 3D printed steels and composites intended for wear applications in abrasive, dry or slurry erosive conditions

Kumar, Rahul, 1993-; Antonov, Maksim; Beste, U.; Goljandin, Dmitri International journal of refractory metals and hard materials 2020 / art. 105126, 9 p. : ill <https://doi.org/10.1016/j.ijrmhm.2019.105126> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Assessment of abrasive powder behaviour during impact-abrasive wear of PCD elements

Gomon, Dmitri; Auriemma, Fabio; Antonov, Maksim Wear 2019 / p. 151-161 : ill <https://doi.org/10.1016/j.wear.2019.03.024> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Assessment of cermets performance in aggressive media

Antonov, Maksim 2006 http://www.ester.ee/record=b2208731*est

Assessment of cermets performance in erosive media

Hussainova, Irina; Antonov, Maksim International journal of materials & product technology 2007 / 3/4, p. 361-376 : ill <https://www.inderscience.com/info/inarticle.php?artid=13085>

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 mechanically mixed layer developed during high temperature erosion of cermets

Antonov, Maksim; Hussainova, Irina; Pirso, Jüri; Volobujeva, Olga Wear 2007 / 2, p. 878-886 : ill

Assessment of zirconia doped hardmetals as tribomaterials

Hussainova, Irina; Antonov, Maksim; Voltšihhin, Nikolai Wear 2011 / p. 1909-1915 : ill

Assessment of the potential of lubricated contact condition laboratory testing and surface analysis for improving the performance of machine elements. Comparison of model and real component test methods

Antonov, Maksim; Michalczewski, Remigiusz; Pasaribu, Richard; Piekoszewski, Witold 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATTRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 55

Assessment of the reliability of hardfacings for soil rippers

Jankauskas, Vytenis; Katinas, Egidijus; Varnauskas, Valentinas; Katinas, A.; Antonov, Maksim Journal of friction and wear 2015 / p. 89-95 : ill <https://doi.org/10.3103/S106836661501016X> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Assessment of tribological performance of 3D printed macro features on the metallic surface

Antonov, Maksim; Pohlak, Meelis; Ivanov, Roman; Kariminejad, Arash; Hussainova, Irina Wear 2026 / art. 206398 <https://doi.org/10.1016/j.wear.2025.206398>

Axial and torsional buckling analysis of single- and multi-walled carbon nanotubes : finite element comparison between armchair and zigzag types

Rahmani Ahranjani, Ramin; Antonov, Maksim SN Applied Sciences 2019 / art. 1134, 13 p. : ill <https://doi.org/10.1007/s42452-019-1190-0>

Behaviour of tungsten alloy with iron and nickel under repeated high temperature plasma pulses

Laas, T.; Laas, K.; Paju, J.; Priimets, Jaanis; Töke, Siim; Väli, B.; Shirokova, Veronika; Antonov, Maksim; Gribkov, V.A.; Demina, E.V.; Pimenov, V.N.; Paduch, M.; Matulka, R.; Akel, M. Fusion engineering and design 2020 / art. 111408 <https://doi.org/10.1016/j.fusengdes.2019.111408> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A case study of printed circuit boards recycling by disintegrator technology

Klauson, Artur; Goljandin, Dmitri; Kulu, Priit; Antonov, Maksim; Gustafsson, Göran; Davoodi, Ali Modern materials and manufacturing 2023 : Tallinn, Estonia, 2-4 May 2023 2024 / art. 040014 <https://doi.org/10.1063/5.0189208> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Cavitation resistance of WC-10Co4Cr and WC-20CrC-7Ni HVOF coatings

Korobov, Yuri; Alwan, H.; Soboleva, Natalia; Antonov, Maksim Journal of Thermal Spray Technology 2022 / p. 234-246 <https://doi.org/10.1007/s11666-021-01242-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cermets surface transformation under erosive and abrasive wear

Antonov, Maksim; Hussainova, Irina Tribology international 2010 / p. 1566-1575 : ill

Characterization of microstructure and mechanical properties of cermets at micro- and nanoscales

Hussainova, Irina; Antonov, Maksim; Jasiuk, Iwona; Du, Xiangdong International journal of materials & product technology 2011 / p. 58-74 : ill

Chromium carbide based cermets as the wear resistant materials

Antonov, Maksim; Hussainova, Irina; Pirso, Jüri Proceedings of the 4th International Conference Industrial Engineering - New Challenges to SME : 29-30 April 2004, Tallinn, Estonia 2004 / p. 177-180 : ill

Circular economy approach to recycling technologies of post-consumer textile waste in Estonia : a review

Hussain, Abrar; Kamboj, Nikhil Kumar; Podgurski, Vitali; Antonov, Maksim; Goljandin, Dmitri Proceedings of the Estonian Academy of Sciences 2021 / p. 80-90 : ill <https://doi.org/10.3176/proc.2021.1.07> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Coatings and surface engineering. Industry oriented research

Veinthal, Renno; Kulu, Priit; Zikin, Arkadi; Sarjas, Heikki; Antonov, Maksim; Podgurski, Vitali; Adoberg, Eron Estonian journal of engineering 2012 / p. 176-184 : ill https://kirj.ee/public/Engineering/2012/issue_3/Eng-2012-3-176-184.pdf

Combination of SLM-SPS approaches for tribological, antibacterial and biomaterial applications = Kombineeritud SLM-SPS meetod triboloogiliste, antibakteriaalsete ja biosobivate materjalide valmistamiseks

Rahmani Ahranjani, Ramin 2020 <https://digikogu.taltech.ee/et/Item/4cd6a755-29d9-4168-a281-a21edca6c729>

Comparative study of plasma clad Fe-based composite hardfacings with in situ synthesized Cr and Ti carbide reinforcement

Tkachivskiy, Dmytro; Viljus, Mart; Traksmas, Rainer; Antonov, Maksim; Surženkov, Andrei; Juhani, Kristjan; Kulu, Priit
Solid state phenomena ; 320 2021 / p. 83-89 <https://doi.org/10.4028/www.scientific.net/SSP.320.83> [Conference proceedings metrics at Scopus](#) [Article at Scopus](#)

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 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

Comparison of a tribological model and real component test methods for lubricated contacts

Antonov, Maksim; Michalczewski, Remigiusz; Pasaribu, Rihard; Piekoszewski, Witold Estonian journal of engineering 2009 / 4, p. 349-358 : ill

Comparison of the wear and frictional properties of Cu matrix composites prepared by pulsed electric current sintering

Ritasalo, Riina; Antonov, Maksim; Veinthal, Renno; Hannula, Simo-Pekka Proceedings of the Estonian Academy of Sciences 2014 / p. 62-74 : ill https://artiklid.elnet.ee/record=b2665219*est <https://doi.org/10.3176/proc.2014.1.09> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Competition between immiscibility GAP and supercooling during non-equilibrium processing of metallic materials

Aftab, Rabia; Antonov, Maksim GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 11
<http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Composition and structure of bimodal WC-Co materials related to mechanical properties and abrasive wear

Yung, Der-Liang; Antonov, Maksim; Hussainova, Irina; Veinthal, Renno; Hogmark, Sture M2D2015 : proceedings of the 6th International Conference on Mechanics and Materials in Design, 2015 2015 / p. 655-664

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

Corrigendum to "Generation and development of damages in double forged tungsten in different regimes of irradiation with extreme heat loads" [J. Nucl. Mater. 495 (2017) 91-102]

Paju, Jana; Väli, Berit; Laas, Tõnu; Shirokova, Veronika; Antonov, Maksim Journal of nuclear materials 2018 / p. 323-324 : tab
<https://doi.org/10.1016/j.jnucmat.2018.03.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Covalent coupling of ionic liquid to carbon nanotubes : preparation and tribological properties

Taaber, Triinu; Põhako-Esko, Kaija; Antonov, Maksim; Veinthal, Renno Materials Research Society symposium proceedings 2014 / p. UU06-30 : ill <https://doi.org/10.1557/opl.2014.539> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Design and technology of oxides-containing ceramic-based composites = Oksiide sisaldava komposiitkeraamika tehnoloogia

Voltšihhin, Nikolai 2014 https://www.ester.ee/record=b4438763*est

Determination of resistance to wear of particulate composite

Aruniit, Aare; Antonov, Maksim; Kers, Jaan; Krumme, Andres Engineering materials & tribology XXII 2014 / p. 188-191
<https://doi.org/10.4028/www.scientific.net/KEM.604.188> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

Development of solid lubricated composites for high-temperature tribological applications = Tahkmäärdega komposiitide väljatöötamine kõrgtemperatuurseteks triborakendusteks

Kumar, Rahul, 1993- 2022 <https://doi.org/10.23658/taltech.75/2022> <https://digikogu.taltech.ee/et/Item/b117812c-4248-4542-ba39-fcbfe5349f4e> https://www.ester.ee/record=b5528171*est

Effect of alloying additives on impact-abrasive wear of manual arc welded hadfield steel hardfacings

Jankauskas, Vytenis; Antonov, Maksim; Katinas, Egidijus; Gedzevicius, I. Journal of friction and wear 2016 / p. 170-178 : ill
<https://doi.org/10.3103/S1068366616020185> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of basalt addition on tribological performance of FeCrSiB HVOF coatings

Antonov, Maksim; Surženkov, Andrei; Hussainova, Irina; Goljandin, Dmitri; Mikli, Valdek Estonian journal of engineering 2012 / p. 211-220 : ill https://artiklid.elnet.ee/record=b2527729*est

Effect of basalt and silica additives on erosive wear resistance of cast ceramics

Baroninš, Janis; Antonov, Maksim; Ivanov, Roman; Shuliak, Volodymyr; **Hussainova, Irina** Proceedings of the Estonian Academy of Sciences 2016 / p. 144-151 : ill <https://doi.org/10.3176/proc.2016.2.05> https://artiklid.elnet.ee/record=b2768221*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of basalt reinforcement type and content on the abrasive wear behaviour of polymer composites

Antonov, Maksim; Kers, Jaan; Liibert, Laura; Shuliak, Volodymyr; Smirnov, Anton; Bartolome, Jose F. Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 181-188 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.181> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Effect of cBN content and additives on sliding and surface fatigue wear of spark plasma sintered Al₂O₃-cBN composites

Kumar, Rahul, 1993-; Antonov, Maksim; Klimczyk, Piotr; **Mikli, Valdek; Gomon, Dmitri** Wear 2022 / art. 204250 <https://doi.org/10.1016/j.wear.2022.204250> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of electrode covering composition on the microstructure, wear, and economic feasibility of Fe-C-Cr manual arc-welded hardfacings

Jankauskas, Vytenis; Katinas, Egidijus; Laskauskas, Arturas; **Antonov, Maksim;** Varnauskas, Valentinas; Gedzevičius, Irmantas; Aleknevičienė, Vilija Coatings 2020 / art. 294, 19 p. : ill <https://doi.org/10.3390/coatings10030294> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of erodent particle impact energy on wear of cemented carbides

Antonov, Maksim; Yung, Der-Liang; **Goljandin, Dmitri; Mikli, Valdek; Hussainova, Irina** Wear 2017 / p. 507-515 : ill <https://doi.org/10.1016/j.wear.2016.11.032> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of FeNiCrBSiC-MeB₂ material composition on the oxidation behavior at high temperatures

Umanskyi, Oleksandr; Storozhenko, Maryna; Koshelev, M.; **Antonov, Maksim** Powder metallurgy and metal ceramics 2019 / p. 670-678 : ill <https://doi.org/10.1007/s11066-019-00030-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of graphene nanoplatelet content on mechanical and elevated-temperature tribological performance of self-lubricating ZE10 magnesium alloy nanocomposites

Kandemir, Sinan; Yöyler, Sibel; **Kumar, Rahul, 1993-; Antonov, Maksim;** Dieringa, Hajo Lubricants 2024 / art. 52 <https://doi.org/10.3390/lubricants12020052> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of HBN on wear of AlCrN-coated spark plasma - sintered TiB₂/Ti composites at temperatures up to 900°C

Luszcz, Maciej; Michalczewski, Remigiusz; Kalbarczyk, Marek; Osuch-Słomka, Edyta; Molenda, Jarosław; Liu, Le; **Antonov, Maksim; Hussainova, Irina** Quarterly tribologia 2022 / p. 43-55 <https://doi.org/10.5604/01.3001.0015.8756>

Effect of laser heat treatment on Al_xTi_{1-x}N-based PVD coatings, deposited on carbon and tool steel substrates

Surženkov, Andrei; Viljus, Mart; Antonov, Maksim; Kübarsepp, Jakob; Juhani, Kristjan; Kulu, Priit; Vagiström, Heinar; Jankauskas, Vytenis; Leišys, Rimtautas; Bendikiene, Regita; Adoberg, Eron; Peetsalu, Priidu; **Mere, Arvo; Gregor, Andre** Surface and coatings technology 2022 / art. 128771 <https://doi.org/10.1016/j.surfcoat.2022.128771> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of lattice surface treatment on performance of hardmetal - titanium interpenetrating phase composites

Holovenko, Yaroslav; Kollo, Lauri; Saarna, Mart; Rahmani Ahranjani, Ramin; Soloviova, Tetiana; **Antonov, Maksim;** Prashanth, Konda Gokuldoss; Cygan, Slawomir; **Veinthal, Renno** International journal of refractory metals and hard materials 2020 / art. 105087, 10 p. : ill <https://doi.org/10.1016/j.ijrmhm.2019.105087> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of loading system inertia on tribological behaviour of ceramic–ceramic, ceramic–metal and metal–metal dry sliding contacts

Antonov, Maksim; Hussainova, Irina; Adoberg, Eron Tribology international 2013 / p. 207-214 : ill <https://doi.org/10.1016/j.triboint.2013.03.025> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of loading system rigidity and inertia on friction coefficient and wear rate of ceramic-ceramic sliding contacts

Antonov, Maksim; Adoberg, Eron; Hussainova, Irina Proceedings of the 13th International Conference on Metrology and Properties of Engineering Surfaces : 12-14 April 2011, London 2011 / p. 151-155 : ill

Effect of Local Remelting and Recycled WC-Co Composite Reinforcement Size on Abrasive and Erosive Wear of Manual Arc Welded Hardfacings

Katinas, Egidijus; **Antonov, Maksim;** Jankauskas, Vytenis; **Goljandin, Dmitri** Coatings 2023 / art. 734 <https://doi.org/10.3390/coatings13040734> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of oxidation on abrasive wear behaviour of TiC-based cermets in SiO₂ medium

Antonov, Maksim; Hussainova, Irina; Pirso, Jüri; Juhani, Kristjan Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [II] 2010 / p. 510-515 : ill

Effect of oxidation on abrasive wear behaviour of titanium carbide based composites in silica medium

Antonov, Maksim; Hussainova, Irina; Pirso, Jüri; Juhani, Kristjan; Viljus, Mart Estonian journal of engineering 2010 / 4, p. 264-272 : ill

Effect of oxidation on abrasive wear of TiC-based cermets at various temperatures

Antonov, Maksim; Hussainova, Irina; Pirso, Jüri; Juhani, Kristjan Proceedings of 14th Nordic Symposium on Tribology : NORDTRIB 2010 : 08.06-11.06.2010, Storforsen, Sweden 2010 / p. 0054 [CD-ROM]

Effect of oxidation on erosive wear behaviour of boiler steels

Antonov, Maksim; Veinthal, Renno; Huttunen-Saarivirta, E.; Hussainova, Irina; Vallikivi, Ahto; Lelis, Martynas; Priss, Jelena Tribology international 2013 / p. 35-44 : ill <https://doi.org/10.1016/j.triboint.2012.09.011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 pulsed deuterium plasma irradiation on dual-phase tungsten high-entropy alloys

Tökke, Siim; Laas, Tõnu; Priimets, Jaanis; Tarraste, Marek; Mikli, Valdek; Antonov, Maksim Fusion engineering and design 2022 / 11 p. : ill <https://doi.org/10.1016/j.fusengdes.2022.113260> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of pulsed deuterium plasma irradiation on dual-phase tungsten medium-entropy alloys

Laas, Tõnu; Tökke, Siim; Paju-Hamburg, Jana; Tarraste, Marek; Mikli, Valdek; Antonov, Maksim; Priimets, Jaanis; Czarkowski, Piotr; Miklaszewski, Ryszard; Paduch, Marian Fusion engineering and design 2025 / art. 115229 <https://doi.org/10.1016/j.fusengdes.2025.115229>

Effect of SiO₂ and PTFE additives on dry sliding of NiP electroless coating

Gutsev, D.; Antonov, Maksim; Hussainova, Irina; Grigoriev, A.Y. Tribology international 2013 / p. 295-302 : ill <https://doi.org/10.1016/j.triboint.2012.12.012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of solid lubricants on wear of PVD-coated spark plasma-sintered TiB₂/Ti composites

Luszcz, Maciej; Michalczewski, Remigiusz; Kalbarczyk, Marek; Osuch-Slomka, Edyta; Liu, Le; Antonov, Maksim; Hussainova, Irina Modern materials and manufacturing 2023 2024 / art. 040010 <https://doi.org/10.1063/5.0190460> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Effect of surface features stiffness on tribological performance of 3D printed light-weight Ti6Al4V alloy

Antonov, Maksim; Pohlak, Meelis; Ivanov, Roman; Hussainova, Irina Modern materials and manufacturing 2023 2024 / art. 040015 <https://doi.org/10.1063/5.0189279> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Effect of temperature and load on three-body abrasion of cermets and steel

Antonov, Maksim; Hussainova, Irina; Veinthal, Renno; Pirso, Jüri Tribology international 2012 / p. 261-268 : ill <https://www.sciencedirect.com/science/article/pii/S0301679X11002015>

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 temperature on erosive and abrasive wear of carbide reinforced powder steels

Veinthal, Renno; Antonov, Maksim Tribology 2011 : proceedings of the 10th International Tribology Conference, Pretoria, South Africa, 5-7 April 2011 2011 / p. 104-111 : ill

Effect of temperature on sliding and erosive wear of fiber reinforced polyimide hybrids

Zhao, Gai; Hussainova, Irina; Antonov, Maksim; Wang, Qihua; Wang, Tingmei; Yung, Der-Liang Tribology international 2015 / p. 525-533 : ill <https://doi.org/10.1016/j.triboint.2014.01.019> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of thermal shock treatment parameters on the efficiency of WC-Co cermet recycling

Kariminejad, Arash; Antonov, Maksim; Kumar, Rahul, 1993-; Goljandin, Dmitri; Klimczyk, Piotr; Viljus, Mart AIP conference proceedings 2024 / art. 040013 <https://doi.org/10.1063/5.0189330> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Effect of thermal spraying method on the microstructure and wear behaviour of FeNiCrBSiC-CrB₂ coating

Umanskyi, O.; Storozhenko, M.; **Antonov, Maksim**; Terentyev, O.; Koval, O.; **Goljandin, Dmitri** Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 37-42 : ill https://www.ester.ee/record=b5235278*est <https://www.scientific.net/KEM.799.37> <https://doi.org/10.4028/www.scientific.net/KEM.799.37> Conference proceeding at Scopus Article at Scopus

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

Effect of tribosystem and inertia on run-in behavior of PVD coatings

Antonov, Maksim; Adoberg, Eron; **Hussainova, Irina**; **Goljandin, Dmitri**; **Zikin, Arkadi** ECOTRIB 2011 : 3rd European Conference on Tribology and 4th Vienna International Conference on Nano-Technology : June 7-9, 2011, Vienna, Austria. 1 2011 / p. 159-164

Effect of WC grain size and content on erosive wear of manual arc welded hardfacings with low-carbon ferritic-pearlitic steel or stainless steel matrix

Katinas, Egidijus; **Antonov, Maksim**; Jankauskas, Vytenis; Skirkus, Remigijus Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 213-218 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.213> Conference Proceedings at Scopus Article at Scopus

Effect of WC grain size and content on low stress abrasive wear of manual arc welded hardfacings with low-carbon or stainless steel matrix

Jankauskas, Vytenis; **Antonov, Maksim**; Varnauskas, Valentinas; Skirkus, Remigijus; **Goljandin, Dmitri** Wear 2015 / p. 378-390 : ill <https://doi.org/10.1016/j.wear.2015.02.063> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Effect of wear debris entrapment on the tribological performance of AlCoCrFeNi produced by selective laser melting or spark plasma sintering

Karimi, Javad; **Antonov, Maksim**; **Prashanth, Konda Gokuldoss** Metallurgical and materials transactions A : Physical metallurgy and materials science 2022 / p. 4004-4010 <https://doi.org/10.1007/s11661-022-06805-z> Journal metrics at Scopus Article at Scopus Journal metrics 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

Elevated temperature wear of chromium carbide based cermets

Hussainova, Irina; **Antonov, Maksim** Engineering Materials & Tribology : BALTMATRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 67

Elevated temperature wear of chromium carbide based cermets

Hussainova, Irina; **Antonov, Maksim** Proceedings of the Estonian Academy of Sciences. Engineering 2003 / 4, p. 261-271 : ill

Erosion and abrasion of chromium carbide based cermets produced by different methods

Hussainova, Irina; **Pirso, Jüri**; **Antonov, Maksim**; **Juhani, Kristjan**; **Letunovitš, Sergei** Wear 2007 / 2, p. 905-911 : ill

Erosion of Cr₃C₂-based cermets at room and elevated temperatures

Antonov, Maksim; **Hussainova, Irina** Proceedings of the 3rd International Conference Industrial Engineering - New Challenges to SME : 25-27 April 2002, Tallinn, Estonia 2002 / p. 137-140 : ill

Erosion studies of the iron boride coatings for protection of tubing components in oil production, mineral processing and engineering applications

Medvedovski, Eugene; **Antonov, Maksim** Wear 2020 / art. 203277, 8 p. : ill <https://doi.org/10.1016/j.wear.2020.203277> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Erosion studies of the iron boride coatings for protection of tubing components in oil production, mineral processing and engineering applications

Medvedovski, Eugene; **Antonov, Maksim** 44th International Conference & Exposition on Advanced Ceramics and Composites, January 26-31, 2020, Daytona Beach, Florida : Abstract book 2020 / (ICACC-S2-005-2020) ; p. 19 https://ceramics.org/wp-content/uploads/2018/09/ICACC20_Abtracts_WebFinal.pdf

Erosion testing of refractory cermets at high temperature [Electronic resource]

Antonov, Maksim; Hussainova, Irina Proceedings of 12th Nordic Symposium in Tribology : NORDTRIB 2006 : Helsingor, Denmark, 7-9 June 2006 2006 / [10] p. [CD-ROM]

Erosion wear behavior of HVOF-sprayed WC/Cr₃C₂-based cermet and martensitic stainless steel coatings on AlSi₇Mg_{0.3} alloy : a comparative study

Korobov, Yuri; **Antonov, Maksim**; Astafiev, Vladimir; Brodova, Irina; Kutaev, Vladimir; Estemirova, Svetlana; Devyatyarov, Mikhail; Okulov, Artem Journal of manufacturing and materials processing 2024 / art. 231 <https://doi.org/10.3390/jmmp8050231> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Erosion wear testing of boiler steels at elevated temperatures

Priss, Jelena; Klevtsov, Ivan; Dedov, Andrei; Antonov, Maksim 14th International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. II" : Pärnu, Estonia, January 13-18, 2014 2014 / p. 248-250 : ill

Erosion-corrosion of Cr₃C₂-Ni cermets in salt water

Antonov, Maksim; Stack, Margaret; **Hussainova, Irina** Proceedings of the Estonian Academy of Sciences. Engineering 2006 / 3-1, p. 176-187 : ill

Erosion-oxidation of pressure vessel steel P265GH

Huttunen-Saarivirta, E.; Kuokkala, V.-T.; **Antonov, Maksim**; **Veinthal, Renno**; Tuiremo, J.; Mäkelä, K. Tribologia : Finnish journal of tribology 2012 / p. 11-19 : ill <https://journal.fi/tribologia/article/view/69337>

Erosive and impact-abrasive wear of hardmetals with Fe-based binders

Tarraste, Marek; Antonov, Maksim; Kolnes, Märt; Viljus, Mart; Ormus, Andres-Hardi Journal of the Japan Society of Powder and Powder Metallurgy 2025 / p. S1437-S1444 <https://doi.org/10.2497/jjspm.16F-T15-05>

Erosive wear failures

Antonov, Maksim Failure analysis and prevention, vol. 11 2021 / p. 755–763 <https://doi.org/10.31399/asm.hb.v11.a0006795>

Erosive wear of advanced composites based on WC

Hussainova, Irina; Antonov, Maksim; Zikin, Arkadi Tribology international 2012 / p. 254-260 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0301679X11001630>

Erosive wear of boiler steels by sand and ash

Huttunen-Saarivirta, E.; Kinnunen, H.; Tuiremo, J.; Uusitalo, M.; **Antonov, Maksim** Wear 2014 / p. 213-224 : ill <https://doi.org/10.1016/j.wear.2014.06.007> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Erosive wear of spark plasma sintered Al₂O₃ - cBN ceramic composites

Kariminejad, Arash; Kumar, Rahul; Antonov, Maksim; Hussainova, Irina; Klimczyk, Piotr Diamond and Related Materials 2025 / art. 112328 <https://doi.org/10.1016/j.diamond.2025.112328>

Erosive wear resistance of nature-inspired flexible materials

Kumar, Rahul, 1993-; Antonov, Maksim; Holovenko, Yaroslav; Surženkov, Andrei Tribology letters 2020 / art. 51, 8 p. : ill <https://doi.org/10.1007/s11249-020-01296-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Erratum: Multifractal analysis of high-temperature plasma irradiated tungsten surfaces (Surface Topography: Metrology and Properties (2021) 9 (035030) DOI: 10.1088/2051-672x/ac1dc3)

Martsepp, Merike; Laas, Tõnu; Laas, Katrin; **Priimets, Jaanis; Mikli, Valdek; Antonov, Maksim** Surface topography : metrology and properties 2023 / art. 029501 <https://doi.org/10.1088/2051-672X/acc81c> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

The experimental and theoretical investigations of damage development and distribution in double-forged tungsten under plasma irradiation-initiated extreme heat loads

Väli, Berit; Laas, Tõnu; Paju, Jana; **Antonov, Maksim** Nukleonika 2016 / p. 169-177 : ill <https://doi.org/10.1515/nuka-2016-0029> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experimental damage mechanics of cotton wastes

Hussain, Abrar; Podgurski, Vitali; Antonov, Maksim; Gonjandin, Dmitri; Viljus, Mart Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 19 l. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Experimental setup for testing and mapping of high temperature abrasion and oxidation synergy

Antonov, Maksim; Hussainova, Irina Wear 2009 / 11, p. 1798-1803 : ill

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

Friction and wear of fiber reinforced polyimide composites

Zhao, Gai; Hussainova, Irina; Antonov, Maksim; Wang, Qihua; Wang, Tingmei Wear 2013 / p. 122-129 : ill <https://doi.org/10.1016/j.wear.2012.12.019> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Friction and wear of fiber reinforced polyimide composites

Zhao, Gai; Hussainova, Irina; Antonov, Maksim; Wang, Qihua; Wang, Tingmei; **Veinthal, Renno** 19th International Conference on Wear of Materials : Portland, Oregon, USA, 14-18 April 2013 : conference abstracts 2013 / [p. 92]

Friction studies of metal surfaces with various 3D printed patterns tested in dry sliding conditions

Holovenko, Yaroslav; **Antonov, Maksim; Kollo, Lauri; Hussainova, Irina** Proceedings of the Institution of Mechanical Engineers. Part J, Journal of engineering tribology 2018 / p. 43-53 <https://doi.org/10.1177/1350650117738920> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

From scrap to product : the effect of recycled tungsten carbide and alumina content on the mechanical properties of oxide-carbide duplex ceramic composite

Kariminejad, Arash; Klimczyk, Piotr; **Antonov, Maksim; Hussainova, Irina** Proceedings of the Estonian Academy of Sciences 2025 / p. 192-197 <https://doi.org/10.3176/proc.2025.2.20>

Functionally gradient Ti6Al4V-TiB composite produced by spark plasma sintering

Liu, Le; Ivanov, Roman; Kumar, Rahul, 1993-; Minasyan, Tatevik; Antonov, Maksim; Hussainova, Irina IOP conference series : materials science and engineering 2021 / art. 012004, 6 p.: ill <https://doi.org/10.1088/1757-899X/1140/1/012004>

Generation and development of damage in double forged tungsten in different combined regimes of irradiation with extreme heat loads

Paju, Jana; Väli, Berit; Laas, Tõnu; **Shirokova, Veroonika; Antonov, Maksim** Journal of nuclear materials 2017 / p. 91-102 : ill <https://doi.org/10.1016/j.jnucmat.2017.07.042> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High temperature cyclic impact/abrasion testing of boiler steels

Priss, Jelena; Klevtsov, Ivan; Dedov, Andrei; Antonov, Maksim; Rojacz, Harald; Badisch, Ewald Engineering materials & tribology XXII 2014 / p. 289-292 <https://doi.org/10.4028/www.scientific.net/KEM.604.289> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

High temperature erosion of Ti(Mo)C-Ni cermets

Hussainova, Irina; Pirso, Jüri; Antonov, Maksim; Juhani, Kristjan Wear 2009 / 11, p. 1894-1899 : ill

High temperature erosion-corrosion of wear protection materials

Varga, Markus; Rojacz, Harald; Widder, Lukas; **Antonov, Maksim** Journal of Bio- and Tribo-Corrosion 2021 / art. 87 <https://doi.org/10.1007/s40735-021-00504-9> [Journal metrics at Scopus](#) [Article at Scopus](#)

High temperature sliding wear of NiAl-based coatings reinforced by borides

Umanskyi, Oleksandr; Poliarus, Olena; Ukrainets Maksym; **Antonov, Maksim; Hussainova, Irina** Medziagotyra 2016 / p. 49 - 53 <https://doi.org/10.5755/j01.ms.22.1.8093> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High temperature wear of cermet particle reinforced NiCrBSi hardfacing

Zikin, Arkadi; Antonov, Maksim; Hussainova, Irina Tribology international 2013 / p. 45-55 : ill <https://doi.org/10.1016/j.triboint.2012.08.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-temperature erosion of Cr₃C₂-based cermets

Hussainova, Irina; Antonov, Maksim Abstracts of 10th Nordic Symposium on Tribology NORDTRIB 2002 / p. 112

High-temperature erosion of Cr₃C₂-based cermets [Electronic resource]

Hussainova, Irina; Antonov, Maksim Proceedings of 10th Nordic Symposium on Tribology NORDTRIB 2002 / Ref 21 [CD-ROM]

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 wear performance of hBN-added Ni-W composites produced from combustion-synthesized powders

Kumar, Rahul, 1993-; Aydinyan, Sofiya; Ivanov, Roman; Liu, Le; Antonov, Maksim; Hussainova, Irina Materials 2022 / art. 1252 <https://doi.org/10.3390/ma15031252> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hot sliding wear of 88 wt.% TiB-Ti composites from SHS produced powders

Kumar, Rahul, 1993-; Liu, Le; Antonov, Maksim; Ivanov, Roman; Hussainova, Irina Materials 2021 / art. 1242, 14 p.: ill <https://doi.org/10.3390/ma14051242> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

HVOF sprayed Fe-Based wear-resistant coatings with carbide reinforcement, synthesized in situ and by mechanically activated synthesis

Tkachivskyi, Dmytro; Juhani, Kristjan; Surženkov, Andrei; Kulu, Priit; Antonov, Maksim; Goljandin, Dmitri Coatings 2020 / art. 1092, 15 p.: ill <https://doi.org/10.3390/coatings10111092> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hybrid metal-ceramic biomaterials fabricated through powder bed fusion and powder metallurgy for improved impact resistance of craniofacial implants

Rahmani Ahranjani, Ramin; Kamboj, Nikhil Kumar; Brojan, Miha; Antonov, Maksim; Prashanth, Konda Gokuldoss Materials 2022 / art. 101465 <https://doi.org/10.1016/j.mtl.2022.101465> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hybrid syntactic foams of metal - fly ash cenosphere - clay

Shishkin, Andrei; Mironovs, Viktors; Zemchenkov, Vjacheslav; Antonov, Maksim; Hussainova, Irina Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 35-40 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.35> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

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

Impact of pulsed deuterium plasma irradiation on dual-phase tungsten alloys

Tökke, Siim; Laas, Tõnu; Primets, Jaanis; Mikli, Valdek; Antonov, Maksim Fusion engineering and design 2021 / art. 112215, 10 p.: ill <https://doi.org/10.1016/j.fusengdes.2020.112215> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Industrial approach to circularity of polymer composites : processing, characterization, mechanical testing, and wear regression

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Antonov, Maksim Journal of reinforced plastics and composites 2024 / p. 456-472 : ill <https://doi.org/10.1177/07316844231164563> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of Cr, Ti and Zr oxides formation on high temperature sliding of NiAl-based plasma spray coatings

Poliarus, Olena; Umanskyi, Oleksandr; Ukrainets, Maksym; Kostenko, Oleksii; Antonov, Maksim; Hussainova, Irina Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 308-312 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.308> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Influence of laser hardening to the sliding wear resistance of the PVD (Al,Ti)N-G and nACo® 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 proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

Influence of particle impact conditions and temperature on erosion-oxidation of steels at elevated temperatures

Huttunen-Saarivirta, E.; Antonov, Maksim; Veinthal, Renno; Tuiremo, J.; Mäkelä, K.; Siitonen, P. Wear 2011 / p. 159-175 : ill

Investigation of boiler materials with relation to corrosion and wear : review

Priss, Jelena; Klevtsov, Ivan; Dedov, Andrei; Antonov, Maksim Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 389-394 : ill

Investigation of the corrosion and tribological properties of WC-Co tools hardened with PVD coatings in solid oak wood processing

Kazlauskas, Deividas; Jankauskas, Vytenis; Antonov, Maksim Coatings 2024 / art. 569 <https://doi.org/10.3390/coatings14050569> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Investigation of the high temperature dry sliding wear behavior of graphene nanoplatelets reinforced aluminum matrix composites

Seçkin, Martin; Kandemir, Sinan; **Antonov, Maksim** Journal of composite materials 2021 / 13 p. : ill

<https://doi.org/10.1177/0021998320979037> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

Laboratory testing of materials for tunnel boring machine drag bits

Katušin, Dmitri; Antonov, Maksim; Vu, Trieu Minh; Yung, Der-Liang 13th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 14-19, 2013 2013 / p. 300-303 : ill

Lightweight 3D printed Ti6Al4V-AlSi10Mg hybrid composite for impact resistance and armor piercing shielding

Rahmani Ahranjani, Ramin; Antonov, Maksim; Brojan, Miha Journal of materials research and technology 2020 / p. 13842-13854 : ill <https://doi.org/10.1016/j.jmrt.2020.09.108> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Loodusest inspireeritud uued komposiitmaterjalid

Antonov, Maksim Horisont 2019 / lk. 16-17 : fot http://www.ester.ee/record=b1072243*est

Mapping of impact-abrasive wear performance of WC-Co cemented carbides

Antonov, Maksim; Veinthal, Renno; Yung, Der-Liang; Katušin, Dmitri; Hussainova, Irina Wear 2015 / p. 971-978 : ill
<https://doi.org/10.1016/j.wear.2015.02.031> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mathematical modelling and optimization of erosion and corrosion in tribology = Erosiooni ja korrosiooni matemaatilise modelleerimine ja optimeerimine triboloogias

Casesnoves, Francisco 2018 <https://digi.lib.ttu.ee/i/?11175> https://www.ester.ee/record=b5175834*est

Mechanical behavior of Ti6Al4V scaffolds filled with CaSiO3 for implant applications

Rahmani Ahranjani, Ramin; Antonov, Maksim; Kollo, Lauri; Holovenko, Yaroslav; Prashanth, Konda Gokuldoss Applied sciences 2019 / art. 3844, 11 p. : ill <https://doi.org/10.3390/app9183844> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mechanical characterization and wear performance of WC–ZrO2–Ni cermets produced by hot isostatic pressing

Hussainova, Irina; Smirnov, Anton; Antonov, Maksim Advances in Key Engineering Materials 2011 / p. 344-348 : ill

Mechanical properties of polymers recovered from multilayer food packaging by nitric acid

Šleiniūtė, Agnė; Mumladze, Tamari; Denafas, Gintaras; Makarevičius, Vidas; Kriūkienė, Rita; **Antonov, Maksim; Vasarevičius, Saulius** Sustainability (Switzerland) 2024 / art. 2106 <https://doi.org/10.3390/su16052106> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Micromechanical properties and erosive wear performance of chromium carbide based cermets

Hussainova, Irina; Jasiuk, Iwona; Sardela, M.; Antonov, Maksim Wear 2009 / p. 152-159 : ill

Microstructural aspects of ceramic-metal composites performance in erosive media

Hussainova, Irina; Antonov, Maksim; Volobujeva, Olga Advances in science and technology 2006 / 11th International Ceramic Congress, p. 132-141 : ill

Microstructural investigation of ni-based high temperature self-lubricating laser claddings containing sulfides of nickel, copper or bismuth

Kumar, Rahul, 1993-; Torres, Hector; Rodríguez Ripoll, Manel; Antonov, Maksim; Hussainova, Irina Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 31 I. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Microstructure and high temperature tribological behaviour of self-lubricating Ti-TiBx composite doped with Ni-Bi

Kumar, Rahul, 1993-; Torres, Hector; Aydinian, Sofiya; Antonov, Maksim; Varga, Markus; Rodríguez Ripoll, Manel; Hussainova, Irina Surface and coatings technology 2022 / art. 128827 <https://doi.org/10.1016/j.surfcoat.2022.128827> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mild steel tribology for circular economy of textile industries

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Antonov, Maksim; Basit, Muhammad Abdul; Ahmad, Tahir Tribology in Industry 2021 / p. 552-560 <https://doi.org/10.24874/ti.1050.02.21.04> [Journal metrics at Scopus](#) [Article at Scopus](#)

Modeling of microstructures and analysis of abrasive wear of arc-welded Hadfield steel

Jankauskas, Vytenis; Choteborsky, R.; Antonov, Maksim; Katinas, Egidijus Journal of friction and wear 2018 / p. 78-84 : ill
<https://doi.org/10.3103/S1068366618010142> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Modelling of impact-abrasive wear of ceramic, metallic, and composite materials

Rahmani Ahranjani, Ramin; Antonov, Maksim; Kamboj, Nikhil Kumar Proceedings of the Estonian Academy of Sciences 2019 / p. 191–197 : ill <https://doi.org/10.3176/proc.2019.2.11> http://www.kirj.ee/public/proceedings_pdf/2019/issue_2/proc-2019-2-191-197.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Multifractal analysis of high-temperature plasma irradiated tungsten surfaces

Martsepp, Merike; Laas, Tõnu; Laas, Katrin; Priimets, Jaanis; Mikli, Valdek; Antonov, Maksim Surface topography : metrology and properties 2021 / 13 p. : ill <https://doi.org/10.1088/2051-672X/ac1dc3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

NeTTUN project : how to increase the lifetime of TBM drag bits?

Fridrici, V.; Antonov, Maksim; Katušin, Dmitri; Yung, Der-Liang; Veinthal, Renno; Hussainova, Irina 2nd Eastern European Tunnelling Conference "Tunneling in a Challenging Environment", Making tunneling business in difficult times : EETC 2014, Athens, Greece, 28 September - 1 October 2014 2014

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

Nitriding of the CoCr alloy substrate as the method for improving of the performance of promising biocoatings for hip replacement

Ortega Saenz, Javier Alonso; Antonov, Maksim; Michalczewski, Remigiusz 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 44

Novel pathway for the combustion synthesis and consolidation of boron carbide

Zakaryan, Marieta; Zurnachyan, Alina; Amirkhanyan, Narine; Kirakosyan, Hasmik; Antonov, Maksim; Rodriguez, Miguel Angel; Aydinyan, Sofiya Materials 2022 / art. 5042 <https://doi.org/10.3390/ma15145042> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Oxidation of spark plasma sintered ZrC-Mo and ZrC-TiC composites

Yung, Der-Liang; Maaten, Birgit; Antonov, Maksim; Hussainova, Irina International journal of refractory metals and hard materials 2017 / p. 244-251 : ill <https://doi.org/10.1016/j.jirmhm.2017.03.019> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Oxidation-abrasion of TiC-based cermets in SiC medium

Antonov, Maksim; Hussainova, Irina; Kübarsepp, Jakob; Traksmaa, Rainer Wear 2011 / p. 23-31 : ill

Particle reinforced polymer composites resistance to three body abrasive wear

Aruniit, Aare; Antonov, Maksim; Kers, Jaan; Krumme, Andres TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p

Performance of Al₂O₃-cBN materials and the perspective of using hyperspectral imaging during cutting tests

Antonov, Maksim; Zahavi, Ali; Kumar, Rahul, 1993-; Tamre, Mart; Klimczyk, Piotr IOP conference series : materials science and engineering 2021 / art. 012029, 5 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012029>

Performance of Al₂O₃-cBN materials and the perspective of using hyperspectral imaging during cutting tests

Antonov, Maksim; Zahavi, Ali; Kumar, Rahul, 1993-; Tamre, Mart; Klimczyk, Piotr Proceedings of the Estonian Academy of Sciences 2021 / p. 524-532 : ill <https://doi.org/10.3176/proc.2021.4.21> [Journal Metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Performance of polyimide and PTFE based composites under sliding, erosive and high stress abrasive conditions

Kumar, Rahul, 1993-; Malaval, Bastien; Antonov, Maksim; Zhao, Gai Tribology international 2020 / art. 106282 <https://doi.org/10.1016/j.triboint.2020.106282> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Perspectives of metal-diamond composites additive manufacturing using SLM-SPS and other techniques for increased wear-impact resistance

Rahmani Ahranjani, Ramin; Brojan, Miha; Antonov, Maksim; Prashanth, Konda Gokuldoss International journal of refractory metals and hard materials 2020 / art. 105192, 13 p. : ill <https://doi.org/10.1016/j.jirmhm.2020.105192> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Physical-chemical interaction in NiAl-MeB₂ systems intended for tribological applications

Umanskyi, Oleksandr; Poliarus, Olena; Ukrainets, Maksym; Antonov, Maksim Welding journal 2015 / p. 225-230 : ill <https://aws-p-001-delivery.sitecorecontenthub.cloud/api/public/content/de3281a8c6654d108b8b8dfcdf286c4b?v=1c0c676e> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Progress in sustainable recycling and circular economy of tungsten carbide hard metal scraps for industry 5.0 and onwards

Kumar, Rahul, 1993-; Kariminejad, Arash; Antonov, Maksim; Goljandin, Dmitri; Klimczyk, Piotr; Hussainova, Irina Sustainability 2023 / art. 12249 <https://doi.org/10.3390/su151612249> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Raman spectroscopy for reliability assessment of multilayered AlCrN coating in tribo-corrosive conditions [Online resource]

Baroninš, Janis; Antonov, Maksim; Bereznev, Sergei; Raadik, Taavi; Hussainova, Irina Coatings 2018 / art. 229, 12 p. : ill <https://doi.org/10.3390/coatings8070229> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Raman spectroscopy of multilayered AlCrN coating under high temperature sliding/oxidation

Baroninš, Janis; Antonov, Maksim; Bereznev, Sergei; Raadik, Taavi; Hussainova, Irina Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 9-14 <https://www.scientific.net/KEM.799.9> https://www.ester.ee/record=b5235278*est <https://doi.org/10.4028/www.scientific.net/KEM.799.9> [Conference proceeding at Scopus](#) [Article at Scopus](#)

Recycled wc powder for manufacturing of duplex interpenetrating tool materials for dry machining

Kariminejad, Arash; Antonov, Maksim; Hussainova, Irina; Goljandin, Dmitri; Kumar, Rahul, 1993-; Klimczyk, Piotr GSFMT Scientific Conference 2023 : Tartu, 23-24 May, 2023 : abstracts 2023 / 1 p <https://fntdk.ut.ee/programm-2023/>

Recycling of waste printed circuit boards by mechanical milling

Goljandin, Dmitri; Kulu, Priit; Klauson, Aleksander; Antonov, Maksim Proceedings of the Estonian Academy of Sciences 2024 / p. 43-49 <https://doi.org/10.3176/proc.2024.1.05> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Regression models and fuzzy logic prediction of TBM penetration rate

Vu, Trieu Minh; Katušin, Dmitri; Antonov, Maksim; Veinthal, Renno Open engineering 2017 / p. 60-68 : ill <https://doi.org/10.1515/eng-2017-0012> [Journal metrics at Scopus](#) [Article at Scopus](#)

Reliability aspects of PVD coatings sliding under wear and corrosive conditions = PVD pinnete töökindluse aspektid liughõõrdumise ja korrosiooni tingimustes

Baroninš, Janis 2018 <https://digi.lib.ttu.ee/i/?11163> https://www.ester.ee/record=b5174063*est

Reliability assessment of cutting tool materials using surface fatigue device

Kumar, Rahul, 1993-; Antonov, Maksim GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 48 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

Research of abrasive erosion wear for Fe-C-Cr-B hard layers

Janauskas, V.; Kreivaitis, R.; Kulu, Priit; Antonov, Maksim; Milcius, D.; Varnauskas, V. Mechanika 2008 / 4, p. 71-76 : ill <https://mechanika.ktu.lt/index.php/Mech/article/view/15098>

Review of existing devices for erosion-corrosion testing of materials [Online resource]

Baroninš, Janis; Antonov, Maksim; Hussainova, Irina Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

Rippling on wear scar surfaces of nanocrystalline diamond films after reciprocating sliding against ceramic balls

Podgurski, Vitali; Hantschel, Thomas; Bogatov, Andrei; Kimmari, Eduard; Antonov, Maksim; Viljus, Mart; Mikli, Valdek; Raadik, Taavi; Kulu, Priit Tribology letters 2014 / p. 493-501 : ill <https://doi.org/10.1007/s11249-014-0379-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Role of laser remelting and heat treatment in mechanical and tribological properties of selective laser melted Ti6Al4V alloy

Karimi, Javad; Antonov, Maksim; Kollo, Lauri; Prashanth, Konda Gokuldoss Journal of alloys and compounds 2022 / art. 163207 <https://doi.org/10.1016/j.jallcom.2021.163207> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Selective laser melting of diamond-containing or postnitrided materials intended for impact-abrasive conditions: experimental and analytical study

Rahmani Ahranjani, Ramin; Antonov, Maksim; Kollo, Lauri Advances in materials science and engineering 2019 / art. 4210762 ; 11 p. : ill <https://doi.org/10.1155/2019/4210762> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Selective laser melting of Ti/cBN composite

Minasyan, Tatevik; Liu, Le; Aydinyan, Sofiya; Antonov, Maksim; Hussainova, Irina Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 257-262 : ill <https://www.scientific.net/KEM.799.257> https://www.ester.ee/record=b5235278*est

<https://doi.org/10.4028/www.scientific.net/KEM.799.257> Conference proceeding at Scopus Article at Scopus

Self-lubricating materials for extreme temperature tribo-applications

Kumar, Rahul, 1993-; Antonov, Maksim Materials today: proceedings 2021 / p. 4583-4589

<https://doi.org/10.1016/j.matpr.2020.10.824> Conference proceedings at Scopus Article at Scopus

Sliding wear behaviour of basalt containing composites with additions of either metallic and/or ceramic phases

Antonov, Maksim; Goljandin, Dmitri; Andreev, A.; Voltšihhin, Nikolai; Hussainova, Irina BaltTrib 2013 : VII International Scientific Conference : proceedings 2013 / p. 67-72 : ill

Sliding wear of HVOF sprayed self-fluxing alloy matrix cermet particles reinforced composite coatings

Surženkov, Andrei; Antonov, Maksim; Mikli, Valdek; Latokartano, Jyrki; Vilgo, Timo; Kulu, Priit BALTTTRIB'2013 : VII International Scientific Conference : 14-15 November 2013, Kaunas, Lithuania : proceedings 2013 / p. 62-66

https://www.researchgate.net/publication/258862543_SLIDING_WEAR_OF_HVOF_SPRAYED_SELF-FLUXING_ALLOY_MATRIX_CERMET_PARTICLES_REINFORCED_COMPOSITE_COATINGS

Sliding wear of TiC-NiMo and Cr₃C₂-Ni cermet particles reinforced FeCrSiB matrix HVOF sprayed coatings

Surženkov, Andrei; Antonov, Maksim; Goljandin, Dmitri; Vilgo, Timo; Mikli, Valdek; Viljus, Mart; Latokartano, Jyrki; Kulu, Priit Estonian journal of engineering 2013 / p. 203-211 : ill <https://doi.org/10.3176/eng.2013.3.03> Article at Scopus

Sliding wear performance of AlCrN coating on TiB₂/Ti composites at high temperatures

Michalczewski, Remigiusz; Kalbarczyk, Marek; Słomka, Zbigniew; Osuch-Słomka, Edyta; Łuszcz, Maciej; Liu, Le; Antonov, Maksim; Hussainova, Irina Materials 2021 / art. 6771 <https://doi.org/10.3390/ma14226771> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Sliding wear performance of in-situ spark plasma sintered Ti-TiB_w composites at temperatures up to 900 °C

Kumar, Rahul, 1993-; Antonov, Maksim; Liu, Lei; Hussainova, Irina Wear 2021 / art. 203663, 9 p.: ill

<https://doi.org/10.1016/j.wear.2021.203663> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Slurry erosion testing of steel with oil shale ash as abrasive

Priss, Jelena; Klevtsov, Ivan; Juhani, Kristjan; Antonov, Maksim 11th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 16-21, 2012 2012 / p. 300-302 : ill

Solid lubrication at high-temperatures - a review

Kumar, Rahul, 1993-; Hussainova, Irina; Rahmani Ahranjani, Ramin; Antonov, Maksim Materials 2022 / art. 1695

<https://doi.org/10.3390/ma15051695> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Solid particle erosion of refractories : A critical discussion of two test standards

Varga, Markus; Antonov, Maksim; Tumma, Mike Wear 2019 / p. 552–561 : ill <https://doi.org/10.1016/j.wear.2018.12.062> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Solid particle erosion of the Cr₃C₂-Ni metalmatrix composites

Antonov, Maksim; Hussainova, Irina; Pirso, Jüri OST-01 Symposium on Machine Design : Tallinn, Estonia, October 4-5, 2001 : proceedings 2001 / p. 233-243 : ill

Spark plasma sintered ZrC-Mo cermets : influence of temperature and compaction pressure

Yung, Der-Liang; Antonov, Maksim; Hussainova, Irina Ceramics international 2016 / p. 12907-12913 : ill

<https://doi.org/10.1016/j.ceramint.2016.05.059> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Spark plasma sintering of combustion synthesized TiB₂-Si composite

Liu, Le; Aydinyan, Sofiya; Minasyan, Tatevik; Baroninš, Janis; Antonov, Maksim; Kharatyan, Suren; Hussainova, Irina Ceramics in modern technologies 2019 / p. 59-66 <https://doi.org/10.29272/cmt.2018.0009>

Structural and mechanical properties of laminate-type thin film SWCNT/SiOXNY composites

Shmagina, Elizaveta; Volobujeva, Olga; Antonov, Maksim; Bereznev, Sergei SICT 2024, PLASMA TECH 2024 and TRIBOLOGY 2024 : JOINT international conferences : book of abstracts 2024 / p. 142 <https://www.setcor.org/conferences/tribology-2024/conference-program>

Structural, mechanical, and optical properties of laminate-type thin film SWCNT/SiOxNy composites

Shmagina, Elizaveta; Antonov, Maksim; Kasikov, Aarne; Volobujeva, Olga; Khabushev, Eldar M.; Kallio, Tanja; Bereznev, Sergei Nanomaterials 2024 / art. 1806 <https://doi.org/10.3390/nano14221806> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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

Study of submerged and plasma arc welded composite hardfacings with a novel Cr3C2–Ni reinforcement

Bendikiene, Regita; **Surženkov, Andrei**; Tkachivskyi, Dmytro; Juhani, Kristjan; Viljus, Mart; Traksmas, Rainer; Antonov, Maksim; Kulu, Prit Proceedings of the Estonian Academy of Sciences 2019 / p. 150–157 : ill <https://doi.org/10.3176/proc.2019.2.06> http://www.kirj.ee/public/proceedings_pdf/2019/issue_2/proc-2019-2-150-157.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Subsurface of Cr3C2-Ni cermets modified by wear [Electronic resource]

Antonov, Maksim; Hussainova, Irina Proceedings of the 10th International Conference of the European Ceramic Society 2008 / ? p. [CD-ROM] https://www.academia.edu/24587100/Subsurface_of_Cr_3_C_2_Ni_Cermets_Modified_by_Wear

Superhard CBN-AL2O3 composites for cutting tool applications

Kumar, Rahul, 1993-; **Antonov, Maksim** Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [4.-5. veebr. 2019, Tartu : teesid] 2019 / 1 p <http://fmdk.ut.ee/teesid-2019/>

Sustainable fabrication of polypropylene-postconsumer cotton composite materials : circularity, characterization, mechanical testing, and tribology

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; **Antonov, Maksim**; Viljus, Mart; Krasnou, Illia Materials today sustainability 2023 / art. 100344, 16 p. : ill <https://doi.org/10.1016/j.mtsust.2023.100344> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Synergistic effect of Ag and MoS2 on high-temperature tribology of self-lubricating NiCrBSi composite coatings by laser metal deposition

Kumar, Rahul, 1993-; **Antonov, Maksim**; Varga, Markus; **Hussainova, Irina**; Rodriguez Ripoll, Manel Wear 2023 / art. 205114 <https://doi.org/10.1016/j.wear.2023.205114> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ZrC-based and ZrC-doped composites for high-temperature and wear applications = ZrC baasil ja ZrC-ga legeritud komposiitmaterjalid rakendusteks kõrgtemperatuursetes ja kulumistingimustes

Yung, Der-Liang 2016 http://www.eester.ee/record=b4621174*est

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](#)

Tekstiilijäätmete ringmajandamine nõuab praegusest tõhusamat tehnoloogiat [Võrguväljaanne]

Hellerma, Juhan novaator.err.ee 2021 / fot [Tekstiilijäätmete ringmajandamine nõuab praegusest tõhusamat tehnoloogiat](#)

Temperature-induced wear micro-mechanism transition in additively deposited nickel alloys with different solid lubricants

Kumar, Rahul, 1993-; **Hussainova, Irina**; **Antonov, Maksim**; Maurya, Himanshu Singh; Rodriguez Ripoll, Manel Wear 2024 / art. 205452 <https://doi.org/10.1016/j.wear.2024.205452> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The assessment of the coated elements behaviour before and after scuffing under four-ball lubricated testing conditions

Michalczewski, Remigiusz; **Antonov, Maksim**; Vlad, Mihaela; Szczerek, Marian; **Hussainova, Irina** Proceedings of the 2nd European Conference on Tribology ECOTRIB 2009 : Pisa, Italy, June 7-10, 2009 2009 / p. 107-112

The effect of fine erodent retained on the surface during erosion of metals, ceramics, plastic, rubber and hardmetal

Antonov, Maksim; Pirso, Jüri; Goljandin, Dmitri; Vallikivi, Ahto; **Hussainova, Irina** Wear 2016 / p. 53-68 : ill <https://doi.org/10.1016/j.wear.2016.02.018> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

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

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](#)

The effect of spark plasma sintering thermal cycle on behaviour of Fe-based hardfacings reinforced with WC and WC-based hardmetal

Katinas, Egidijus; **Antonov, Maksim**; Jankauskas, Vytenis; Tarraste, Marek Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed

papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. [3]-8 : ill https://www.ester.ee/record=b5235278*est <https://www.scientific.net/KEM.799.3> <https://doi.org/10.4028/www.scientific.net/KEM.799.3>
[Conference proceeding at Scopus](#) [Article at Scopus](#)

The effect of Zinc Oxide on DLP hybrid composite manufacturability and mechanical-chemical resistance

Baroninš, Janis; **Antonov, Maksim**; Abramovskis, Vitalijs; Rautmane, Aija; Lapkovskis, Vjaceslavs; Bockovs, Ivans; Goel, Saurav; Kumar Thakur, Vijay; Shishkin, Andrei Polymers 2023 / art. 4679, p. 1–19 <https://doi.org/10.3390/polym15244679> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The effect of test conditions on the erosion resistance of cermets

Antonov, Maksim; Hussainova, Irina International Symposium on Machine Design OST 2001 : [Tallinn, Estonia, October 4-5, 2001] : abstracts 2001 / [1] p

The impact resistance of highly densified metal alloys manufactured from gas-atomized pre-alloyed powders

Rahmani Ahranjani, Ramin; **Antonov, Maksim**; Prashanth, Konda Gokuldoss Coatings 2021 / art. 216, 14 p. : ill <https://doi.org/10.3390/coatings11020216> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The rolling contact fatigue of PVD coated spur gears

Michalczewski, Remigiusz; Piekoszewski, Witold; Szczerek, Marian; Tuszynski, Waldemar; **Antonov, Maksim** Engineering materials and tribology 2013 / p. 77-82
https://www.researchgate.net/publication/258178620_The_Rolling_Contact_Fatigue_of_PVD_Coated_Spur_Gears

The wear mechanism in heavy-loaded lubricated coated/steel sliding contacts

Vlad, Mihaela; Szczerek, Marian; Michalczewski, Remigiusz; **Antonov, Maksim** Tribologia 2010 / 6, p. 153-168 : ill
https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://bibliotekanauki.pl/articles/190040.pdf&ved=2ahUKewi29Zn44oeIAxhMhAIHUbTCiYQFnoECBIQAQ&usq=AOvVaw2FT2xYT98MhnLtuIMDb_IU

The wear of PVD coated elements in oscillation motion at high temperature

Michalczewski, Remigiusz; Kalbarczyk, Marek; Slomka, Zbigniew; Liu, Le; **Antonov, Maksim**; Hussainova, Irina Proceedings of the Estonian Academy of Sciences 2021 / p. 500-507 : ill <https://doi.org/10.3176/proc.2021.4.18> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal residual stresses in chromium carbide based cermets

Jasiuk, Iwona; **Hussainova, Irina**; Hamed, Elham; Yang, Ning; **Antonov, Maksim** Proceedings of the 8th International Congress on Thermal Stresses, 1-4 June 2009 : Thermal Stresses 2009 : Abstract book vol. 2 2009 / p. 483-486 : ill

Thermal shock behaviour of cermets

Antonov, Maksim; Pirso, Jüri; **Hussainova, Irina**; Klug, Markus Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 75

Thermal shock resistance of chromium carbide-based cermets

Antonov, Maksim; Pirso, Jüri Encyclopedia of thermal stresses 2014 / p. 5128-5135 : ill

Thermophysical properties and thermal shock resistance of chromium carbide based cermets

Antonov, Maksim; Hussainova, Irina Proceedings of the Estonian Academy of Sciences. Engineering 2006 / 4, p. 358-367 : ill

Thermo-physical properties and thermal shock resistance of chromium carbide based cermets

Antonov, Maksim; Hussainova, Irina 15th International Baltic Conference "Engineering Materials & Tribology. Baltattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 26-27 : ill

3D printing of plain and gradient cermets with efficient use of raw materials

Antonov, Maksim; Ivanov, Roman; Holovenko, Yaroslav; Goljandin, Dmitri; **Rahmani Ahranjani, Ramin**; Kollo, Lauri; **Hussainova, Irina** Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 239-245 : ill <https://doi.org/10.4028/www.scientific.net/KEM.799.239>
https://www.ester.ee/record=b5235278*est [Conference proceeding at Scopus](#) [Article at Scopus](#)

3D printing of plain and gradient cermets with efficient use of raw materials

Antonov, Maksim; Ivanov, Roman; Holovenko, Yaroslav; Goljandin, Dmitri; **Rahmani Ahranjani, Ramin**; Kollo, Lauri; **Hussainova, Irina** Cermets : aggregated book 2023 / p. 83–90 <https://doi.org/10.4028/b-j9Oly>

TiAlN coatings tribology for textile machinery parts

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; **Antonov, Maksim** Proceedings of the Estonian Academy of Sciences 2021 / p. 163-171 : ill <https://doi.org/10.3176/proc.2021.2.04> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

TiCN coating tribology for the circular economy of textile industries

Hussain, Abrar; Podgurski, Vitali; Antonov, Maksim; Viljus, Mart; Goljandin, Dmitri Journal of industrial textiles 2022 / p. 8947S-8959S <https://doi.org/10.1177%2F15280837211025726> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tribological and circular economy aspects of polypropylene/cotton fibre hybrid composite

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Antonov, Maksim; Kumar, Rahul, 1993-; Kamboj, Nikhil Kumar; Rahmani Ahranjani, Ramin; Viljus, Mart; Ahmad, Tahir; Krumme, Andres; Krasnou, Illia Proceedings of the Estonian Academy of Sciences 2022 / p. 186-193 : ill <https://doi.org/10.3176/proc.2022.2.03> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tribological and mechanical properties investigations of post-consumer cotton textiles

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Viljus, Mart; Antonov, Maksim; Bogatov, Andrei; Krasnou, Illia Solid state phenomena ; 320 2021 / p. 97-102 <https://doi.org/10.4028/www.scientific.net/SSP.320.97> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Tribological behavior of Ni-based self-lubricating claddings containing sulfide of nickel, copper, or bismuth at temperatures up to 600 °C

Kumar, Rahul, 1993-; Torres, Hector; Aydinian, Sofiya; Antonov, Maksim; Varga, Markus; Hussainova, Irina; Rodrlguez Ripoll, Manel Surface and coatings technology 2023 / art. 129270, 14 p. : ill <https://doi.org/10.1016/j.surfcoat.2023.129270> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tribological properties of nanocrystalline diamond coating at high temperature sliding conduction [Online resource]

Yashin, Maxim; Baroninš, Janis; Menezes, Pradeep; Viljus, Mart; Raadik, Taavi; Bogatov, Andrei; Antonov, Maksim; Podgurski, Vitali Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märtsil 2018, Tallinn : teesid] GSFMT Scientific Conference 2018 : Tallinn, March 7-8, 2018 : abstracts 2018 / 1 p. : ill <http://fmdtk.ut.ee/teesid-2018/>

Tribology of alumina materials for the circular economy of manufacturing textile industries

Hussain, Abrar; Podgurski, Vitali; Goljandin, Dmitri; Antonov, Maksim; Viljus, Mart Proceedings of the Estonian Academy of Sciences 2021 / lk. 215-220 : ill <https://doi.org/10.3176/proc.2021.3.01> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tungsten carbide material tribology and circular economy relationship in polymer and composites industries

Hussain, Abrar; Podgurski, Vitali; Antonov, Maksim; Abbas, Muhammad Mujtaba; Rizwan, Muhammad Proceedings of the Institution of Mechanical Engineers, Part L : Journal of Materials : Design and Applications 2022 / p. 2066-2073 <https://doi.org/10.1177%2F14644207221096929> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ultra high-pressure spark plasma sintered ZrC-Mo and ZrC-TiC composites

Yung, Der-Liang; Cygan, Slawomir; Antonov, Maksim; Jaworska, Lucyna; Hussainova, Irina International journal of refractory metals and hard materials 2016 / p. 201-206 : ill <https://doi.org/10.1016/j.ijrmhm.2016.09.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

WC tribology for circular economy of manufacturing textile industries

Hussain, Abrar; Podgurski, Vitali; Antonov, Maksim; Goljandin, Dmitri; Viljus, Mart GSFMT Scientific Conference 2021 : Tartu, June 14-15, 2021 : abstracts 2021 / P 33 https://fmdtk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

Wear behavior of Co-free hardmetals doped by zirconia and produced by conventional PM and SPS routines

Hussainova, Irina; Antonov, Maksim; Voltšihhin, Nikolai; Kübarsepp, Jakob Wear 2014 / p. 83-90 : ill <https://doi.org/10.1016/j.wear.2014.01.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear behaviour and wear mechanisms of different hardmetal grades in comparison with polycrystalline diamond in a new impact-abrasion test

Konyashin, I.; Antonov, Maksim; Ries, B. International journal of refractory metals and hard materials 2020 / art. 105286 <https://doi.org/10.1016/j.ijrmhm.2020.105286> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear behaviour of Cr3C2-Ni cermet reinforced hardfacings

Bendikiene, Regita; Ciuplys, Antanas; Sertvytis, Rolandas; Surženkov, Andrei; Tkachivskyi, Dmytro; Viljus, Mart; Traksmas, Rainer; Antonov, Maksim; Kulu, Priit Journal of materials research and technology 2020 / p. 7068-7078 : ill <https://doi.org/10.1016/j.jmrt.2020.05.042> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear behaviour of doped WC–Ni based hardmetals tested by four methods

Yung, Der-Liang; Antonov, Maksim; Veinthal, Renno; Hussainova, Irina Wear 2016 / p. 171-179 : ill <https://doi.org/10.1016/j.wear.2016.02.015> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear mechanisms of PM-HIP tool steels under low and high-stress abrasion : role of carbide type and content

Kumar, Rahul, 1993-; Antonov, Maksim; Berglund, Tomas; Pampori, Tabeen Halawat; Maurya, Himanshu Singh; Viljus, Mart

Wear performance of hierarchically structured alumina reinforced by hybrid graphene encapsulated alumina nanofibers

Hussainova, Irina; Baroninš, Janis; Drozdova, Maria; Antonov, Maksim Wear 2016 / p. 287-295 : ill

<https://doi.org/10.1016/j.wear.2016.09.028> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear rate of nanocrystalline diamond coating under high temperature sliding conditions

Yashin, Maxim; Baroninš, Janis; Menezes, Pradeep; Viljus, Mart; Raadik, Taavi; Bogatov, Andrei; Antonov, Maksim;

Podgurski, Vitali Materials Engineering 2017 : selected, peer reviewed papers from the 26th International Baltic Conference on Materials Engineering 2017, October 26-27, Kaunas, Lithuania 2017 / p. 219-223 : ill

<https://doi.org/10.4028/www.scientific.net/SSP.267.219> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Wear resistance analysis of duplex interpenetrating ceramic composites via in-situ vibration monitoring

Kariminejad, Arash; Auriemma, Fabio; Antonov, Maksim; Klimczyk, Piotr; Hussainova, Irina International journal of refractory metals and hard materials 2026 / art. 107454 <https://doi.org/10.1016/j.jirmhm.2025.107454>

Wear resistance influencers of particle reinforced polymer composite

Aruniit, Aare; Kers, Jaan; Krumme, Andres; Antonov, Maksim; Allikas, Georg; Herranen, Henrik; Pabut, Ott Proceedings of 19th International Conference on Composite Materials (ICCM19) 2013

Wear resistance of (Diamond-Ni)-Ti6Al4V gradient materials prepared by combined selective laser melting and spark plasma sintering techniques

Rahmani Ahranjani, Ramin; Antonov, Maksim; Kollo, Lauri Advances in tribology 2019 / art. 5415897, 12 p. : ill

<https://doi.org/10.1155/2019/5415897> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Verification of new 1000 [degree] C tester designed for investigation of wear-corrosion properties of advanced materials for high temperature applications

Antonov, Maksim; Hussainova, Irina; Kimmari, Eduard; Juhani, Kristjan Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [2] 2008 / p. 395-399 : ill

<http://innomet.ttu.ee/daaam08/online/Materials%20Engineering/Antonov.pdf>

Wetting and interfacial behaviour in the TiB₂-NiCrBSiC system

Storozhenko, Maryna; Umanskyi, Oleksandr; Antonov, Maksim Journal of alloys and compounds 2019 / p. 15-22 : ill

<https://doi.org/10.1016/j.jallcom.2018.11.102> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

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