

#### **Abrasive-erosive wear of thermally sprayed coatings from experimental and commercial Cr<sub>3</sub>C<sub>2</sub>-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>

#### **Average residual stresses in hard Physical Vapor Deposited (PVD) coatings**

Lille, Harri; Ryabchikov, Alexander; Kõo, Jakob; **Mikli, Valdek; Adoberg, Eron; Vagiström, Heinar; Kübarsepp, Jakob; Peetsalu, Priidu** 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. 20-25 : ill <https://doi.org/10.4028/www.scientific.net/KEM.799.20> <https://www.scientific.net/KEM.799.20> [https://www.eester.ee/record=b5235278\\*est](https://www.eester.ee/record=b5235278*est) Conference proceeding at Scopus Article at Scopus

#### **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](https://kirj.ee/public/Engineering/2012/issue_3/Eng-2012-3-176-184.pdf)

#### **Comparative study of surface roughness and tribological behavior during running-in period of hard coatings deposited by lateral rotating cathode arc**

**Podgurski, Vitali; Nisumaa, Reet; Adoberg, Eron; Surženkov, Andrei; Sivitski, Alina; Kulu, Priit** Wear 2010 / p. 751-755 : ill

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

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

#### **Dependence of the friction coefficient on roughness parameters during early stage fretting of (Al,Ti)N coated surfaces**

**Podgurski, Vitali; Adoberg, Eron; Surženkov, Andrei; Kimmari, Eduard; Viljus, Mart; Mikli, Valdek; Hartelt, M.; Wäsche, R.; Šima, M.; Kulu, Priit** Wear 2011 / p. 853-858 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0043164811001815>

#### **Description of punch wear mechanism during fine blanking process**

**Lind, Liina; Peetsalu, Priidu; Põdra, Priit; Adoberg, Eron; Veinthal, Renno; Kulu, Priit** Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [II] 2010 / p. 504-509 : ill

#### **Effect of laser heat treatment on Al<sub>x</sub>Ti<sub>1-x</sub>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 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

#### **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

#### **The effect of temperature and sliding speed on friction and wear of Si<sub>3</sub>N<sub>4</sub>, Al<sub>2</sub>O<sub>3</sub>, and ZrO<sub>2</sub> 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 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

#### **Evaluation of punch wear resistance during industrial test**

**Peetsalu, Priidu; Saarna, Mart; Adoberg, Eron; Kulper, Eha; Lind, Liina; Kulu, Priit** Acta metallurgica Slovaca conference 2010 / 1, p. 105-110 : ill

#### **Evaluation of residual stresses in PVD coatings by means of strip substrate length variation and curvature method of plate substrate**

Lille, Harri; Ryabchikov, Alexander; Kõo, Jakob; **Adoberg, Eron; Lind, Liina; Kurisoo, Liisa; Peetsalu, Priidu** Materials Engineering 2017 : selected, peer reviewed papers from the 26th International Baltic Conference on Materials Engineering 2017, October 26-27, Kaunas, Lithuania 2017 / p. 212-218 <http://dx.doi.org/10.4028/www.scientific.net/SSP.267.212>

### **Evaluation of residual stresses in PVD coatings by means of the curvature method of plate**

Lille, Harri; Ryabchikov, Alexander; **Adoberg, Eron; Kurisoo, Liisa; Peetsalu, Priidu; Lind, Liina** Engineering materials and tribology XXV 2017 / p. 404-408 <http://dx.doi.org/10.4028/www.scientific.net/KEM.721.404>

### **Evaluation of residual stresses in PVD coatings by means of tubular substrate length variation**

Lille, Harri; Ryabchikov, Alexander; Kõo, Jakub; **Adoberg, Eron; Mikli, Valdek; Kübarsepp, Jakob; Peetsalu, Priidu** Residual Stresses 2018 ECRS-10 : 10th European Conference on Residual Stresses (ECRS10) : Leuven, Belgium, 11-14th September, 2018 2018 / p. 131-136 : ill <https://doi.org/10.21741/9781945291890-21>

### **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

### **Hard coatings manufacturing technology used in tooling**

**Gregor, Andre; Podgurski, Vitali; Adoberg, Eron; Kulu, Priit** Proceedings of the 5th International Conference of DAAAM Baltic : Industrial Engineering - Adding Innovation Capacity of Labour Force and Entrepreneur : 20-22 April 2006, Tallinn, Estonia 2006 / p. 255-260 : ill

### **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

### **Influence of drag finishing to dry sliding wear behaviour of PVD nanocomposite nACo coating during running-in**

**Surženkov, Andrei; Podgurski, Vitali; Viljus, Mart; Adoberg, Eron; Nanits, Mats-Maidu; Kulu, Priit; Veinthal, Renno** Materials engineering & Baltrib 2010 : materials of the XIX-th International Baltic Conference : October 28-29, 2010, Riga, Latvia 2010 / p. 26

### **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

### **Influence of surface roughness on the tribological behaviour of the PVD coatings**

**Surženkov, Andrei; Adoberg, Eron; Viljus, Mart; Podgurski, Vitali; Veinthal, Renno; Kulu, Priit; Gregor, Andre** 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATTRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 38

### **Mechanical recycling of electronic wastes by high-energy disintegrator mills**

**Kers, Jaan; Goljandin, Dmitri; Adoberg, Eron; Laurmaa, Viktor; Križan, Peter** TOP 2011 - Engineering of Environment Protection : Casta-Papiernicka, Slovakia, 14-16 June, 2011 2011 / p. 131-136  
[https://www.researchgate.net/publication/288401840\\_Mechanical\\_recycling\\_of\\_electronic\\_wastes\\_for\\_materials\\_recovery](https://www.researchgate.net/publication/288401840_Mechanical_recycling_of_electronic_wastes_for_materials_recovery)

### **Modelling and testing of the properties of recovered composite material**

**Kers, Jaan; Goljandin, Dmitri; Tall, Kaspar; Aruniit, Aare; Adoberg, Eron; Saarna, Mart; Majak, Jüri** Proceedings of the Tenth International Conference on Computational Structures Technology : Valencia, Spain, 14-17 September 2010 2010 / Paper 81  
[https://www.researchgate.net/publication/269140253\\_Modelling\\_and\\_Testing\\_of\\_the\\_Properties\\_of\\_Recovered\\_Composite\\_Material](https://www.researchgate.net/publication/269140253_Modelling_and_Testing_of_the_Properties_of_Recovered_Composite_Material)

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

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

### **Performance of tool steels strengthened by PVD coatings**

**Klaasen, Heinrich; Kübarsepp, Jakob; Tšinjan, Aleksei; Adoberg, Eron; Vainola, Vello** World PM 2010 : International Powder Metallurgy Congress & Exhibition : 10th October – 14th October 2010 : Fortezza da Basso, Florence, Italy 2010 / [6] p

### **Performance of tool steels strengthened by PVD coatings in adhesion and cyclic loading wear conditions**

**Tšinjan, Aleksei; Klaasen, Heinrich; Kübarsepp, Jakob; Adoberg, Eron; Talkop, Adolf; Viljus, Mart** Proceedings of EURO PM 2011 Congress & Exhibition : October 9-12, 2011, Barcelona, Spain 2011 / [6] p.: ill  
[https://www.researchgate.net/publication/286309089\\_Performance\\_of\\_tool\\_steels\\_strengthened\\_by\\_PVD\\_coatings\\_in\\_adhesion\\_and\\_cyclic\\_loading\\_wear\\_conditions](https://www.researchgate.net/publication/286309089_Performance_of_tool_steels_strengthened_by_PVD_coatings_in_adhesion_and_cyclic_loading_wear_conditions)

### **Pre- and posttreatment effect to the surface properties of thin hard coatings**

**Adoberg, Eron; Surženkov, Andrei; Podgurski, Vitali; Peetsalu, Priidu; Kulu, Priit** Materials engineering & Baltrib 2010 : materials of the XIX-th International Baltic Conference : October 28-29, 2010, Riga, Latvia 2010 / p. 44

### **Roughness of TiN and nanocomposite nc-Ti1-xAlxN/[alpha]-Si3N4 surface evaluated by means of AFM**

**Podgurski, Vitali; Nisumaa, Reet; Gregor, Andre; Adoberg, Eron; Kulu, Priit** Latvijas kimijas žurnals = Latvian journal of chemistry 2008 / 1, p. 62-66 : ill

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

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

**The effect of surface pre-treatment and coating post-treatment to the properties of TiN coatings**

**Adoberg, Eron; Podgurski, Vitali; Peetsalu, Priidu; Lind, Liina; Mikli, Valdek; Hvizdoš, Pavol; Kulu, Priit** Estonian journal of engineering 2012 / p. 185-192 : ill [https://kirj.ee/public/Engineering/2012/issue\\_3/Eng-2012-3-185-192.pdf](https://kirj.ee/public/Engineering/2012/issue_3/Eng-2012-3-185-192.pdf)

**Tool life in stainless steel AISI 304 : applicability of Colding's tool life equation for varying tool coatings**

Johansson, Daniel; Leemet, Tõnu; Allas, Jaanus; Madissoo, Marten; **Adoberg, Eron**; Schultheiss, Fredrik Proceedings of the Estonian Academy of Sciences 2016 / p. 172-176 : ill

**Tool wear investigations by direct and indirect methods in end milling**

Leemet, Tõnu; **Allas, Jaanus; Adoberg, Eron** Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 133-138 : ill

**Tribological behavior of carbon nanofibers deposited on hard nanocomposite (nc-Ti1-xAlxN)/(a-Si3N4) coating**

**Kimmari, Eduard; Podgurski, Vitali; Simunin, M.; Adoberg, Eron; Surženkov, Andrei; Viljus, Mart; Hartelt, M.; Wäsche, R.; Sildos, Ilmo; Kulu, Priit** Surface & coatings technology 2013 / p. 21-25 : ill

**Tribological properties of PVD coatings with lubricating films**

**Lind, Liina; Adoberg, Eron; Aarik, Lauri; Kulu, Priit; Veinthal, Renno; Abdel Aal, Alsayed** Estonian journal of engineering 2012 / p. 193-201 : ill

**Vanast lõiketerast saab teha uue**

**Adoberg, Eron** Inseneeria 2010 / 9, lk. 34-36 : ill [https://artiklid.elnet.ee/record=b2167794\\*est](https://artiklid.elnet.ee/record=b2167794*est)

**Wear of hard coatings evaluated by means of kaloMax**

**Podgurski, Vitali; Gregor, Andre; Adoberg, Eron; Kulu, Priit** 15th International Baltic Conference "Engineering Materials & Tribology, Baltmattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 64-65

**Wear of hard coatings, evaluated by means of kaloMax**

**Podgurski, Vitali; Gregor, Andre; Adoberg, Eron; Kulu, Priit** Proceedings of the Estonian Academy of Sciences. Engineering 2006 / 4, p. 419-426 : ill

**Wear performance of PVD coated tool steels**

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