

Abrasion of cermets

Pirso, Jüri; Viljus, Mart; Juhani, Kristjan; Letunovitš, Sergei Advances in engineering research. Volume 3 2011 / p. 397-426

Abrasive erosion of chromium carbide based cermets

Pirso, Jüri; Viljus, Mart; Kübarsepp, Jakob 9th Nordic Symposium on Tribology NORDTRIB 2000 : Porvoo, Finland, 11-14 June 2000. Vol. 3 2000 / p. 959-967 : ill

Abrasive impact wear of WC-Co and TiC-NiMo cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei; Tarraste, Marek Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 621-626 : ill
https://www.researchgate.net/publication/286139638_Abrasive_impact_wear_of_WC-Co_and_TiC-NiMo_cermets

Abrasive wear of chromium carbide based cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei Proceedings of Nordtrib 2008 : 13th Nordic Symposium on Tribology : Tampere, Finland, 10-13 June, 2008 2008 / ? p

Abrasive wear of chromium carbide based cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei Tribologia : Finnish journal of tribology 2008 / 2/3, p. 23-32 : ill

Abrasive wear of Cr₃C₂ base cermets

Pirso, Jüri; Viljus, Mart; Kübarsepp, Jakob; Hussainova, Irina Abstracts of papers from 2nd World Tribology Congress 2001 / p. 158

Abrasive wear of Cr₃C₂ base cermets [Electronic resource]

Pirso, Jüri; Viljus, Mart; Kübarsepp, Jakob; Hussainova, Irina WTC 2001 : 2nd World Tribology Congress : Vienna, Austria, 03-07 September 2001 2001 / [4] p. : ill. [CD-ROM]

Abrasive wear performance of carbide based composites

Kübarsepp, Jakob; Klaasen, Heinrich; Roosaar, Tõnu; Viljus, Mart; Traksmäa, Rainer Proceedings of European Powder Metallurgy Congress : EURO PM2007 : Toulouse (France), 15-17 October 2007. Vol. 1 2007 / p. 221-226

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](#)

Adhesion wear performance of carbide-base composites

Roosaar, Tõnu; Kübarsepp, Jakob; Klaasen, Heinrich; Viljus, Mart Proceedings of Nordtrib 2008 : 13th Nordic Symposium on Tribology : Tampere, Finland, 10-13 June, 2008 2008 / [10] p

Adhesive wear performance of hardmetals and cermets

Klaasen, Heinrich; Kübarsepp, Jakob; Roosaar, Tõnu; Viljus, Mart; Traksmäa, Rainer Wear 2010 / 9/10, p. 1122-1128 : ill

Alloying of TiC-FeCr cermet in manganese vapor

Kolnes, Märt; Tarraste, Marek; Kübarsepp, Jakob; Juhani, Kristjan; Viljus, Mart IOP conference series : materials science and engineering 2021 / art. 012043 <https://doi.org/10.1088/1757-899X/1140/1/012043>

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>

Annealing of frozen-in defects in ZnO

Nirk, Tiit; Lott, Kalju; Seeman, Viktor; Törn, Leo; Viljus, Mart; Öpik, Andres Physica status solidi (c) 2016 / p. 590-593 : ill
<https://doi.org/10.1002/pssc.201510244> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Application issues of additive manufacturing in plaster mold casting of metals

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

Application of Taguchi method for in-situ synthesis of TiC from TiO₂-graphite powders in PTAW hardfacings and characterization thereof

Yöyler, Sibel; Surzhenkov, Andrei; Viljus, Mart; Traksmäa, Rainer; Juhani, Kristjan Modern materials and manufacturing 2023 : Tallinn, Estonia, 2-4 May 2023 2024 / art. 040007 <https://doi.org/10.1063/5.0189317> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Behaviour of carbide composites in different operation conditions

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

Carbide grain and structure formation in Cr₃C₂-base cermets during sintering

Viljus, Mart; Traksmäa, Rainer; Pirso, Jüri Proceedings of Joint Nordic Conference in Powder Technology 2000 / p. 24

Carbide grain growth in Cr₃C₂-based cermets during sintering

Viljus, Mart; Pirso, Jüri; Traksmäa, Rainer Proceedings of the 2nd International Conference, 27-29th April 2000, Tallinn, Estonia / DAAAM International Vienna, DAAAM National Estonia 2000 / p. 159-162 : ill

Characterisation of corrosion resistance of stainless TiC-base cermets

Baranovskaja, Irina; Kübarsepp, Jakob; Idla, Katrin; Viljus, Mart Proceedings of the 2nd International Conference, 27-29th April 2000, Tallinn, Estonia / DAAAM International Vienna, DAAAM National Estonia 2000 / p. 163-166

https://www.researchgate.net/publication/260133663_Characterisation_of_corrosion_resistance_of_stainless_TiC-base_cermets

Characterisation of TiC powders milled by attritor technique

Letunovič, Sergei; Kommel, Lembit; Viljus, Mart; Pirso, Jüri Proceedings of the 2nd International Conference, 27-29th April 2000, Tallinn, Estonia / DAAAM International Vienna, DAAAM National Estonia 2000 / p. 153-156 : ill

Characterization of TiC-FeCrMn cermets produced by powder metallurgy method

Kolnes, Märt; Kübarsepp, Jakob; Kollo, Lauri; Viljus, Mart Medžiagotyra = Materials science 2015 / p. 353-357 : ill

<https://doi.org/10.5755/j01.ms.21.3.7364> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Coin Hoard from Varudi – Vanaküla. Questions and Answers in Conservation

Viljus, Aive; Viljus, Mart International journal of conservation science 2017 / p. 599–606 : ill http://www.ijcs.uaic.ro/public/IJCS-17-57_Viljus.pdf [Journal metrics at Scopus](#) [Article at Scopus](#)

Comparative analysis of two methods for evaluating wear rate of nanocrystalline diamond films

Bogatov, Andrei; Yashin, Maxim; Viljus, Mart; Menezes, Pradeep; Podgurski, Vitali Engineering materials and tribology XXV 2017 / p. 345-350 : ill <https://doi.org/10.4028/www.scientific.net/KEM.721.345> [Conference proceedings at Scopus](#) [Article at Scopus](#)

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

Tkachivskiy, Dmytro; Viljus, Mart; Traksmäa, 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](#)

A comparative study of the growth dynamics and tribological properties of nanocrystalline diamondfilms deposited on the (110) single crystal diamond and Si(100) substrates

Podgurski, Vitali; Bogatov, Andrei; Yashin, Maxim; Viljus, Mart; Volobujeva, Olga; Mere, Arvo; Raadik, Taavi Diamond and related materials 2019 / p. 159-167 : ill <https://doi.org/10.1016/j.diamond.2018.12.024> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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://matcs.ktu.lt/index.php/MatSc/article/view/1339>

Comparison of plasma transferred arc and submerged arc welded abrasive wear resistant composite hardfacings

Simson, Taavi; Kulu, Priit; Surženkov, Andrei; Ciuplys, Antanas; Viljus, Mart; Zaldarys, Gintautas Materials science = Medžiagotyra 2018 / p. 172-176 : ill <https://doi.org/10.5755/j01.ms.24.2.19121> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparison of plasma transferred arc and submerged arc welded abrasive wear resistant composite hardfacings [Online resource]

Simson, Taavi; Kulu, Priit; Surženkov, Andrei; Bendikiene, Regita; Ciuplys, Antanas; Viljus, Mart 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 <http://fntdk.ut.ee/teesid-2018/>

Corrigendum to “The influence of high energy milling and sintering parameters on reactive sintered (Ti, Mo)C–Ni cermets” [J. Alloys Compd. 636 (2015) 381–386] (S0925838815005009) (10.1016/j.jallcom.2015.02.071))

Jõelet, Marek; Pirso, Jüri; Juhani, Kristjan; Viljus, Mart; Traksmäa, Rainer Journal of alloys and compounds 2018 / p. 128 <https://doi.org/10.1016/j.jallcom.2018.05.128> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Corrosion behavior of high velocity oxy-fuel sprayed composite Ni-Fe-based self-fluxing alloy - cermet coatings

Sarjas, Heikki; Surženkov, Andrei; Baroninš, Janis; Viljus, Mart; Traksmäa, Rainer; Kulu, Priit Journal of mineral, metal and

material engineering 2018 / p. 1-9 : ill <http://www.scientificarray.org/journal-of-mineral-metal-and-material-engineering-volume-4/>

Corrosion of titanium carbide cermets in mineral acids

Viljus, Mart; Pirso, Jüri; Kallavus, Urve Materials Engineering - 98 : materials of the VII-th International Baltic Conference, September 24-25, Jurmala, Latvia 1998 / p. 141-145: ill

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>

Design of superhard c-BC₂N-precipitates in B₄C/Al-composites through SHS and heat treatment

Kommel, Lembit; Metsvahi, Rainer; Viljus, Mart; Kimmari, Eduard; Kolju, Karl; Traksmaa, Rainer Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 645-650 : ill

Developments in cermet design, technology and performance

Kübarsepp, Jakob; Pirso, Jüri; Juhani, Kristjan; Viljus, Mart International journal of materials & product technology 2014 / p. 160-179 <https://doi.org/10.1504/IJMP.2014.064046> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dry sliding wear of cermets

Viljus, Mart; Pirso, Jüri International journal of materials & product technology 2007 / 3/4, p. 468-486 : ill

Dry sliding wear of cermets under high-speed conditions

Pirso, Jüri; Ajaots, Maido; Viljus, Mart; Vallikivi, Ahto Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 76

Dual compounds "cemented carbide+steel" produced by diffusion bonding

Klaasen, Heinrich; Kübarsepp, Jakob; Laansoo, Andres; Viljus, Mart European Powder Metallurgy Conference on Meeting the Challenges of a Changing Market Place : EURO PM2003 : Valencia, Spain, October 20-22, 2003 : conference proceedings. Volume 1 2003 / p. 155-159 : ill

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

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

Effect of carbide produces technique on the structure and properties of the Cr₃C₂-Ni cermets

Letunovitš, Sergei; Viljus, Mart; Pirso, Jüri Proceedings of the 3rd International Conference Industrial Engineering - New Challenges to SME : 25-27 April 2002, Tallinn, Estonia 2002 / p. 181-184 : ill

Effect of carbon content on sinterability and properties of ZrO₂ doped WC-cermets

Cura, M. Erkin; Voltšihhin, Nikolai; Hussainova, Irina; Viljus, Mart; Hannula, Simo-Pekka Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 771-776

Effect of carbon stabilizing elements on WC cemented carbides with chromium steel binder

Tarraste, Marek; Kübarsepp, Jakob; Juhani, Kristjan; Mere, Arvo; Viljus, Mart Materials science = Medžiagotyra 2019 / p. 202-206 : ill <https://doi.org/10.5755/j01.ms.25.2.19619> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of free carbon on the mechanical and tribological properties of cemented carbides

Joost, Renee; Pirso, Jüri; Tenno, Taavi; Viljus, Mart Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [Il] 2010 / p. 450-455 : ill

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 nanocrystalline diamond films deflection on wear observed in reciprocating sliding tests

Podgurski, Vitali; Bogatov, Andrei; Sobolev, S.; Viljus, Mart; Sedov, V.; Ashkinazi, E.; Ralchenko, V. Journal of coating science and technology 2016 / p. 109-115 : ill <http://dx.doi.org/10.6000/2369-3355.2016.03.03.2>

The effect of niobium on in situ synthesis of titanium carbide in composite hardfacings

Yöyler, Sibel; Surzhenkov, Andrei; Viljus, Mart; Traksmaa, Rainer; Juhani, Kristjan Materials Engineering and Modern Manufacturing, MeMM 2023 : Selected peer-reviewed extended articles based on abstracts presented at the 30th International Baltic Conference "Materials Engineering and Modern Manufacturing 2023", MeMM 2023 Materials science forum 2023 / p. 55-60 <https://doi.org/10.4028/p-A5WzJl>

The effect of niobium on the microstructure evolution of ferritic stainless steel matrix cermets

Kolnes, Märt; Juhani, Kristjan; Kübarsepp, Jakob; Viljus, Mart Modern materials and manufacturing 2023 2024 / art. 040011
<https://doi.org/10.1063/5.0190158> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

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 sintering conditions on microstructure and performance of TiC-FeCrMn cermets [Electronic resource]

Kolnes, Märt; Kübarsepp, Jakob; Viljus, Mart; Traksmäa, Rainer; Illopmägi, Siim World PM2016 proceedings 2016 / [7] p. : ill. [USB]

Effect of sintering method on surface fatigue of carbide composites

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

Effect of 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](#)

Ein bronzener Brillenspiralanhänger von der Insel Aegna (Estland) : Überlegungen zur Herkunft, Herstellung und zur Insel als Deponierungsort

Sperling, Uwe; Tamla, Ülle; Trommer, Frank; Vassiljev, Jüri; Viljus, Mart Archäologisches Korrespondenzblatt 2021 / S. 205-207
<https://doi.org/10.11588/ak.2021.2.89275> [Journal metrics at Scopus](#) [Article at Scopus](#)

Endolymphatic structures in headshields of the osteostracan genus Tremataspis (Agnatha) from the Silurian of Estonia

Märss, Tiit; Wilson, Mark V.H.; Viljus, Mart Estonian journal of earth sciences 2022 / p. 135-156 : ill
<https://doi.org/10.3176/earth.2022.10> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Erosion wear of reactive sintered WC-TiC-Co cermets

Tarraste, Marek; Juhani, Kristjan; Pirso, Jüri; Viljus, Mart Engineering materials & tribology XXII 2014 / p. 63-66
<https://doi.org/10.4028/www.scientific.net/KEM.604.63> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

Erosion-corrosion wear of WC-Co hardmetals in solid-liquid mixture

Viljus, Mart; Pirso, Jüri Materials Engineering & Balttrib 2001 : materials of the X-th International Baltic Conference : September 27-28, Jurmala, Latvia 2001 / p. 193-197 : ill

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 of TiC-base cermets

Kübarsepp, Jakob; Klaasen, Heinrich; Mikli, Valdek; Viljus, Mart Abstracts of International Conference Materials Engineering and Tribology 2002 / p. 41

Erosive wear of TiC-base cermets

Kübarsepp, Jakob; Klaasen, Heinrich; Mikli, Valdek; Viljus, Mart Medžiagotyra = Materials science 2002 / 4, p. 486-488 : ill

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 I. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Ferritic chromium steel as binder metal for WC cemented carbides

Tarraste, Marek; Kübarsepp, Jakob; Juhani, Kristjan; Mere, Arvo; Kolnes, Märt; Viljus, Mart; Maaten, Birgit International journal of refractory metals and hard materials 2018 / p. 183-191 : ill <https://doi.org/10.1016/j.jrmhm.2018.02.010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Tarasov, Oleksandr; Kübarsepp, Jakob; Viljus, Mart; Saarna, Mart; Sergejev, Fjodor International journal of refractory metals and hard materials 2024 / art. 106905 <https://doi.org/10.1016/j.jrmhm.2024.106905>

Formation of structure of the CdTe film, recrystallized on Mo/glass substrate under high temperature and mechanical pressure

Mikli, Valdek; Hiie, Jaan; Valdna, Vello; Viljus, Mart; Traksmäa, Rainer; Kallavus, Urve Thin solid films 2009 / 7, p. 2252-2255 :

Friction and dry sliding wear behaviour of cermets

Pirso, Jüri; Viljus, Mart; Letunovičs, Sergei Wear 2006 / 7/8, p. 815-824 : ill

Friction and wear behaviour of cemented carbides

Pirso, Jüri; Letunovičs, Sergei; Viljus, Mart Wear 2004 / p. 257-265 : ill

Growth dynamics of nanocrystalline diamond films produced by microwave plasma enhanced chemical vapor deposition in methane/hydrogen/air mixture : scaling analysis of surface morphology

Podgurski, Vitali; Bogatov, Andrei; Sedov, V.; Sildos, Ilmo; Mere, Arvo; Viljus, Mart; Buijnsters, J. G.; Ralchenko, V. Diamond and related materials 2015 / p. 172-179 : ill <https://doi.org/10.1016/j.diamond.2015.07.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hardfacings for extreme wear applications

Kulu, Priit; Surženkov, Andrei; Tarbe, Riho; Saarna, Mart; Tarraste, Marek; Viljus, Mart Surface Modification Technologies XXVIII : proceedings of the Twenty Eighth International Conference on Surface Modification Technologies : Tampere University of Technology, Tampere, Finland, June 16-18, 2014 2015 / p. 149-157 : ill

Heat conductive plates from recycled niobium slag

Kulu, Priit; Goljandin, Dmitri; Viljus, Mart; Traksmäa, Rainer; Gregor, Andre Solid State Phenomena ; 320 2021 / p. 169-175 <https://doi.org/10.4028/www.scientific.net/SSP.320.169> [Conference proceedings at Scopus](#) [Article at Scopus](#)

High energy milling of WC-FeCr cemented carbide

Tarraste, Marek; Kübarsepp, Jakob; Juhani, Kristjan; Kolnes, Märt; Viljus, Mart 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. 136-141 : ill <https://www.scientific.net/KEM.799.136> https://www.ester.ee/record=b5235278*est <https://doi.org/10.4028/www.scientific.net/KEM.799.136> [Conference proceeding at Scopus](#) [Article at Scopus](#)

High temperature electrical conductivity in ZnSe:In and in CdSe:In under selenium vapor pressure

Lott, Kalju; Šinkarenko, Svetlana; Volobujeva, Olga; Türm, Leo; Nirk, Tiit; Öpik, Andres; Nisumaa, Reet; Kallavus, Urve; Nõges, M.; Mikli, Valdek; Viljus, Mart; Gorokhova, Elena; Ananjeva, G.; Grebennik, A.; Vishnjakov, A. Physica status solidi (b) 2007 / 5, p. 1623-1626 https://www.researchgate.net/publication/238892320_High_temperature_electrical_conductivity_in_ZnSeIn_and_in_CdSeIn_under_selenium_vapor_pressure

High temperature electrical conductivity in undoped ceramic ZnO

Lott, Kalju; Nirk, Tiit; Gorokhova, Elena; Türm, Leo; Viljus, Mart; Öpik, Andres; Vishnjakov, A. Crystal research and technology 2015 / p. 10-14 : ill <https://doi.org/10.1002/crat.201400138> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

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

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

High temperature tribological performance of adaptive hard nanocomposite coatings deposited on a WC-Co substrate

Alamgir, Asad; Bogatov, Andrei; Yashin, Maxim; Viljus, Mart; Sendor, J.; Podgurski, Vitali GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 12 <http://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf>

High temperature tribological properties of Al₂O₃/NCD films investigated under ambient air conditions

Podgurski, Vitali; Yashin, Maxim; Jõgiaas, Taivo; Viljus, Mart; Alamgir, Asad; Danilson, Mati; Bogatov, Andrei Coatings 2020 / art. 175, 13 p. : ill <https://doi.org/10.3390/coatings10020175> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Surženkov, Andrei; Antonov, Maksim; Goljandin, Dmitri; Kulu, Priit; Viljus, Mart; Traksmäa, 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 oxidation resistance and tribological properties of Al₂O₃/ta-C coating

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

High-temperature tribological performance of Al₂O₃/a-C:H:Si coating in ambient air

Podgurski, Vitali; Alamgir, Asad; Yashin, Maxim; Jõgiaas, Taivo; Viljus, Mart; Raadik, Taavi; Danilson, Mati; Sergejev, Fjodor; Lümekemann, Andreas; Kluson, Jan; Sondor, Jozef; Bogatov, Andrei Coatings 2021 / art. 495, 15 p. : ill

<https://doi.org/10.3390/coatings11050495> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Alamgir, Asad; Yashin, Maxim; Bogatov, Andrei; Viljus, Mart; Traksmaa, Rainer; Sondor, Jozef; Lümekemann, Andreas;

Sergejev, Fjodor; Podgurski, Vitali Coatings 2020 / art. 909, 10 p. : ill <https://doi.org/10.3390/coatings10090909> [Journal metrics at WOS](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 Nb content on the morphology and properties of Ti (C_{0.5}N_{0.5})-FeCrMo-based green cermets

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

Impact wear of chromium carbide based cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei 17th International Baltic Conference : Materials Engineering 2008 : November 6-7, Kaunas, Lithuania : abstracts of papers 2008 / p. 27-28

Impact wear of chromium carbide based cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei Materials science 2008 / p. 341-344 : ill

Induction brazing of cermets to steel

Laansoo, Andres; Kübarsepp, Jakob; Vainola, Vello; Viljus, Mart Estonian journal of engineering 2012 / p. 232-242 : ill

Induction brazing of cermets to steel and eddy current testing of joint quality

Laansoo, Andres; Kübarsepp, Jakob; Surženkov, Andrei; Land, Raul; Märtens, Olev; Viljus, Mart Welding in the World 2020 / p. 563-571 <https://doi.org/10.1007/s40194-020-00854-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 <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 precursor zirconium carbide powders on the properties of the spark plasma sintered ceramic composite materials

Voltsihhin, Nikolai; Hussainova, Irina; Hannula, Simo-Pekka; Viljus, Mart Developments in Strategic Materials and Computational Design IV 2014 / p. 297-308 : ill <https://doi.org/10.1002/9781118807743> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Influence of pressurized sintering on the performance of TiC-based cermets

Kübarsepp, Jakob; Klaasen, Heinrich; Tsinjan, Aleksei; Juhani, Kristjan; Kollo, Lauri; Viljus, Mart Engineering materials and tribology 2013 / p. 56-61 https://www.researchgate.net/publication/272047524_Influence_of_Pressurized_Sintering_on_Performance_of_TiC-Based_Cermets

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

Maurya, Himanshu Singh; Juhani, Kristjan; Tarraste, Marek; Viljus, Mart; Kumar, Rahul, 1993-; Hussain, Abrar; Sergejev, Fjodor; Kübarsepp, Jakob Vacuum 2024 / art. 113723, 12 p <https://doi.org/10.1016/j.vacuum.2024.113723>

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

In-situ alloying of TiC-FeCr cermets in manganese vapour

Kolnes, Märt; Tarraste, Marek; Kübarsepp, Jakob; Juhani, Kristjan; Viljus, Mart Proceedings of the Estonian Academy of

Investigation of subcontact layers in SiC after diffusion welding

Korolkov, Oleg; Kuznetsova, Natalja; Sitnikova, A.; Viljus, Mart; Rang, Toomas Silicon carbide and related materials 2007 2009 / p. 647-650

Investigation of subcontact layers in SiC after diffusion welding

Korolkov, Oleg; Kuznetsova, Natalja; Sitnikova, A.; Viljus, Mart; Rang, Toomas Silicon carbide and related materials 2007 / p. 100 <https://www.scientific.net/MSF.600-603.647>

Investigation of (Ti, Al)N based coatings grown by physical vapor deposition

Podgurski, Vitali; Torp, Bo; Traksmäa, Rainer; Veinthal, Renno; Viljus, Mart; Coddet, Olivier; Morstein, Marcus; Gregor, Andre; Kulu, Priit Materials science = Medžiagotyra 2005 / 4, p. 352-355 : ill https://www.researchgate.net/publication/237812860_Investigation_of_Ti_AlN_Based_Coatings_Grown_by_Physical_Vapor_Deposition

Kõige toredam on ideede genereerimine : [kineetilise kunstist : vestlus M.Viljusega]

Viljus, Mart; Ruul, Kristi Eesti Sõnumid 1994 / 23. nov., lk. 10

Loom

Viljus, Mart Biotoopia : Bioloogia. Tehnoloogia. Utopia. : Sorose Kaasaegse Kunsti Eesti Keskuse 3. aastanäitus, 22. november - 17. detsember 1995 1996 / 2 lk.: ill

Low temperature synthesized WC and its usability for fine-grained hardmetal

Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei Proceedings of EURO PM2006 Congress & Exhibition : Ghent, Belgium, October 23-25. 1, Hard materials 2006 / p. 281-286

Mart Viljus : [CV ja fotod]

Viljus, Mart; Linnap, Peeter Eesti foto antoloogia. II köide, 1940 kuni 2010 = Anthology of Estonian photography. Volume II, from 1940 to 2010 2021 / lk. 1006-1013 : portr., fot https://www.ester.ee/record=b5386803*est

Mechanical properties and microstructure of reactive sintered WC-TiC-Co cemented carbides

Tarraste, Marek; Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei Proceedings of the 2012 Powder Metallurgy World Congress & Exhibition 2012 https://www.researchgate.net/publication/239937576_Mechanical_Properties_and_Microstructure_of_Reactive_Sintered_WC-TiC-Co_Cemented_Carbides

Mechanically activated synthesis of chromium carbide

Viljus, Mart; Letunovitš, Sergei; Traksmäa, Rainer; Pirso, Jüri Proceedings of the 3rd International Conference Industrial Engineering - New Challenges to SME : 25-27 April 2002, Tallinn, Estonia 2002 / p. 220-223 : ill

Mechanically activated synthesis of nanocrystalline chromium carbide powders

Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei Nanopowders, Nanostructured Materials and Coatings : Network for Nanostructured Materials of ACC : March 17, 2005, Tallinn, Estonia : book of abstracts 2005 / p. 34-36 : ill

Metallographic investigation of iron blooms and bars from the smithy site of Käku, Estonia

Saage, Ragnar; Peets, Jüri; **Kulu, Priit; Peetsalu, Priidu; Viljus, Mart** Fennoscandia archaeologica 2017 / p. 46-58 : ill <https://www.tiedekirja.fi/default/fennoscandia-archaeologica-xxiv.html> Journal metrics at Scopus Article at Scopus

Microstructural and mechanical characteristics of in situ synthesized chromium-nickel-graphite composites

Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei; Juhani, Kristjan Extended abstracts of 2006 Powder Metallurgy World Congress : Busan, Korea, September 24-28. 1 2006 / p. 631-632

Microstructural and mechanical characteristics of in situ synthesized chromium-nickel-graphite composites

Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei; Juhani, Kristjan Materials science forum 2007 / Progress in powder metallurgy, p. 1209-1212 : ill <https://www.scientific.net/MSF.534-536.1209>

Microstructural characteristics and properties of reactive sintered TiC-based cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei 17th Plansee Seminar : International Conference on High Performance P/M Materials : Reutte, Austria, 25-29.05.2009 : proceedings. Vol. 2 2009 / p. HM56/1-HM65/6

Microstructural effects on wear of nonhomogeneous hardmetal materials

Hussainova, Irina; Viljus, Mart Proceedings of the Estonian Academy of Sciences. Engineering 2003 / 2, p. 126-136 : ill https://artiklid.elnet.ee/record=b1012788*est

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

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

Microstructure and properties of reactive sintered TiC-based cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei International Powder Metallurgy Congress & Exhibition : EURO PM2008 : 29th September - 1st October 2008, Mannheim, Germany : proceedings. Vol.3 2008 / p. 89-94 : ill

Microstructure and wear resistance of the laser hardened PM tool steel Vanadis 6

Surženkov, Andrei; Kulu, Priit; Viljus, Mart; Vallikivi, Ahto; Latokartano, Jyrki Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [II] 2010 / p. 486-491 : ill

Microstructure evolution and changes in mechanical properties in WC-Co composites during recycling by oxidation-reduction process and sintering

Joost, Renee; Pirso, Jüri; Viljus, Mart 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATTRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 29

Microstructure evolution in WC-Co composites during reactive sintering from nanocrystalline powders [Electronic resource]

Pirso, Jüri; Viljus, Mart; Joost, Renee; Juhani, Kristjan; Letunovitš, Sergei Advances in Powder Metallurgy & Particulate Materials 2008 2008 / [12] p. : ill. [CD-ROM]

Microstructure evolution of TiC cermets with ferritic AISI 430L steel binder

Kolnes, Märt; Mere, Arvo; Kübarsepp, Jakob; Viljus, Mart; Maaten, Birgit; Tarraste, Marek Powder metallurgy 2018 / p. 197-209 : ill <https://doi.org/10.1080/00325899.2018.1447268> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Microstructure evolution of WC-TiC-Co cemented carbides during reactive sintering [Electronic resource]

Tarraste, Marek; Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Traksmäa, Rainer; Letunovitš, Sergei Proceedings of the 18th Plansee Seminar : International Conference on Refractory Metals and Hard Materials : Reutte/Austria, 3-7 June, 2013 2013 / p. HM 70/1-HM 70/7 [CD-ROM]

Microstructure formation and performance of reactive sintered titanium oxycarbide base ceramic-ceramic composites

Juhani, Kristjan; Kübarsepp, Jakob; Tarraste, Marek; Pirso, Jüri; Viljus, Mart 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. 131-135 : ill <https://www.scientific.net/KEM.799.131> https://www.ester.ee/record=b5235278*est <https://doi.org/10.4028/www.scientific.net/KEM.799.131> [Conference proceeding at Scopus](#) [Article at Scopus](#)

Mikroskoopia kujutiste ja röntgenspektrogrammide töötlemine ja rakendamine materjalide uurimisel : aruanne : G444 : teadussuuna klass 1.2, 2.2

Viljus, Mart 1994 https://www.ester.ee/record=b2084735*est

Nanocrystalline diamond films deformation observed during sliding tests against Si₃N₄ balls as a possible cause for ripple formation on wear scars surface

Bogatov, Andrei; Viljus, Mart; Raadik, Taavi; Hantschel, Thomas; **Podgurski, Vitali** Medžiagotyra = Materials science 2015 / p. 349-352 : ill <https://doi.org/10.5755/j01.ms.21.3.7232> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimization of hardmetal reinforcement content in Fe-based hardfacings for abrasive-impact wear conditions

Surženkov, Andrei; Tarbe, Riho; Tarraste, Marek; Simson, Taavi; Viljus, Mart; Kulu, Priit European Conference on Heat Treatment 2016 and 3rd International Conference on Heat Treatment and Surface Engineering in Automotive Applications : 11-13 May 2016, Prague, Czech Republic, Břevnov Monastery 2016 / [10] p. : ill

Optimization of reinforcement content of powder metallurgy hardfacings in abrasive wear conditions

Simson, Taavi; Kulu, Priit; Surženkov, Andrei; Tarbe, Riho; Viljus, Mart; Tarraste, Marek; Goljandin, Dmitri Proceedings of the Estonian Academy of Sciences 2016 / p. 90-96 : ill https://artiklid.elnet.ee/record=b2768203*est <https://doi.org/10.3176/proc.2016.2.03> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimization of structure of hardmetal reinforced iron-based PM hardfacings for abrasive wear conditions

Simson, Taavi; Kulu, Priit; Surženkov, Andrei; Goljandin, Dmitri; Tarbe, Riho; Tarraste, Marek; Viljus, Mart Engineering materials and tribology XXV 2017 / p. 351-355 <https://doi.org/10.4028/www.scientific.net/KEM.721.351> [Conference proceedings at Scopus](#) [Article at Scopus](#)

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

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

Performance of 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

Phase evolution, microstructure characteristics and properties of Cr₃C₂-Ni cermets prepared by reactive sintering

Juhani, Kristjan; Pirso, Jüri; Letunovitš, Sergei; Viljus, Mart International journal of materials & product technology 2011 / p. 75-91 : ill

Phases micromechanical properties of Ni-base superalloy measured by nanoindentation

Kommel, Lembit; Kimmari, Eduard; Viljus, Mart; Traksmaa, Rainer; Volobujeva, Olga; Kommel, Igor Materials science = Medžiagotyra 2012 / p. 28-33 : ill <https://matssc.ktu.lt/index.php/MatSc/article/view/1337>

Phases properties of SC superalloy measured by nanoindentation

Kommel, Lembit; Kimmari, Eduard; Viljus, Mart Materials engineering & Baltrib 2010 : materials of the XIX-th International Baltic Conference : October 28-29, 2010, Riga, Latvia 2010 / p. 22

Plasma-transferred arc-welded composite hardfacings with ZrB₂ and TiC reinforcements

Melakh, Liudmyla; Surzhenkov, Andrei; Juhani, Kristjan; Viljus, Mart; Traksmaa, Rainer; Vedel, Dmytro Proceedings of the Estonian Academy of Sciences 2025 / p. 165-169 <https://doi.org/10.3176/proc.2025.2.15>

Preparation and properties of CdTe films on Mo/glass substrates

Valdna, Vello; Grossberg, Maarja; Hiie, Jaan; Kallavus, Urve; Mikli, Valdek; Traksmaa, Rainer; Viljus, Mart Thin-film compound semiconductor photovoltaics - 2009 2009 / p. M08-24
https://www.researchgate.net/publication/231763435_Preparation_and_Properties_of_CdTe_Films_on_MoGlass_Substrates

Preparation of nanocrystalline WC powder and ultrafine WC-Co hardmetals

Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei Nanopowders, Nanostuctured Materials and Coatings : Network for Nanostructured Materials of ACC : March 17, 2005, Tallinn, Estonia : book of abstracts 2005 / p. 31-33 : ill

Pressurized sintering of TiC-base cermets

Klaasen, Heinrich; Kollo, Lauri; Kübarsepp, Jakob; Viljus, Mart Proceedings of European Powder Metallurgy Congress : EURO PM2007 : Toulouse (France), 15-17 October 2007. Vol. 1 2007 / p. 215-220

Processing and mechanical characterization of WC–ZrO₂–Ni hybrids

Hussainova, Irina; Kollo, Lauri; Smirnov, Anton; Viljus, Mart World PM2010 proceedings. Vol. 3, Sintered Steel, PM Tool Materials 2010 / p. 583-590 https://www.researchgate.net/publication/250226715_Processing_and_mechanical_characterization_of_WC_-_ZrO2-Ni_hybrids

Processing and properties of bulk ultrafine-grained pure niobium

Kommel, Lembit; Kimmari, Eduard; Saarna, Mart; Viljus, Mart Journal of materials science 2013 / p. 4723-4729 : ill
<https://doi.org/10.1007/s10853-013-7210-3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Processing and tribological properties of chromium carbide based cermets

Hussainova, Irina; Pirso, Jüri; Viljus, Mart Proceedings of World Congress on Powder Metallurgy and Particulate Materials, USA. Vol. 6 2002 / p. 166-173

Production of thermal spray Cr₃C₂-Ni powders by mechanically activated synthesis

Tkachivskyi, Dmytro; Juhani, Kristjan; Surženkov, Andrei; Kulu, Priit; Viljus, Mart; Traksmaa, Rainer; Jankauskas, Vytenis; Leišys, Rimtautas 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. 31-36 : ill <https://doi.org/10.4028/www.scientific.net/KEM.799.31>
https://www.ester.ee/record=b5235278*est <https://www.scientific.net/KEM.799.31> [Conference proceeding at Scopus](#) [Article at Scopus](#)

Reactive carburizing sintering

Pirso, Jüri; Viljus, Mart; Juhani, Kristjan; Letunovitš, Sergei High temperature processes in chemical engineering 2010 / p. 309-334 : ill

Reactive carburizing sintering - a novel production method for high quality chromium carbide-nickel cermets

Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei; Juhani, Kristjan International journal of refractory metals & hard materials 2006 / 3, p. 263-270 : ill <https://www.sciencedirect.com/science/article/abs/pii/S0263436805000909>

Reactive sintering - a new method for producing Cr₃C₂-Ni cermets

Viljus, Mart; Pirso, Jüri; Letunovič, Sergei Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 29

Reactive sintering of bimodal WC-Co hardmetals

Tarraste, Marek; Juhani, Kristjan; Pirso, Jüri; Viljus, Mart Medžiagotyra = Materials science 2015 / p. 382-385 : ill
<https://doi.org/10.5755/j01.ms.21.3.7511> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reactive sintering of Cr₃C₂-Ni cermets

Viljus, Mart; Pirso, Jüri Abstracts of the 12th Joint Nordic Conference in Powder Technology : Tampere, Finland, 2003 2003 / p. 24

Reactive sintering of WC-Cr-Co hardmetals [Electronic resource]

Juhani, Kristjan; Pirso, Jüri; Tarraste, Marek; Viljus, Mart; Letunovič, Sergei Proceedings of the 18th Plansee Seminar : International Conference on Refractory Metals and Hard Materials : Reutte/Austria, 3-7 June, 2013 2013 / [CD-ROM]

Recrystallization of CdTe film under conditions of high temperature and mechanical pressure

Mikli, Valdek; Hiie, Jaan; Viljus, Mart; Nisumaa, Reet; Traksmäa, Rainer; Kallavus, Urve Thin solid films 2008 / 20, p. 7041-7045 : ill

Recycling of hardmetal scrap to WC-Co powder by oxidation-reduction process

Joost, Renee; Pirso, Jüri; Viljus, Mart Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [2] 2008 / p. 449-454 : ill
https://www.researchgate.net/publication/289593153_Recycling_of_hardmetal_scrap_to_wc-co_powder_by_oxidationreduction_process

Recycling of WC-Co hardmetals by oxidation and carbothermal reduction in combination with reactive sintering

Joost, Renee; Pirso, Jüri; Viljus, Mart; Letunovič, Sergei; Juhani, Kristjan Estonian journal of engineering 2012 / p. 127-139 : ill

Reliability of dual compounds "carbide composite+steel" produced by diffusion welding

Klaasen, Heinrich; Kübarsepp, Jakob; Laansoo, Andres; Viljus, Mart International journal of refractory metals and hard materials 2010 / 5, p. 580-586 : ill

Residual stresses in TiC-based cermets measured by indentation

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

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](#)

The role of paradigms and technical strategies for implementation of the circular economy in the polymer and composite recycling industries

Hussain, Abrar; Podgurski, Vitali; Viljus, Mart; Awan, Muhammad Rizwan Advanced Industrial and Engineering Polymer Research 2023 / p. 1-12 <https://doi.org/10.1016/j.aiepr.2022.10.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sintering of high Mn cemented carbides in Mn-rich environment

Tarraste, Marek; Kübarsepp, Jakob; Juhani, Kristjan; Kolnes, Märt; Viljus, Mart; Mere, Arvo Defect and diffusion forum 2020 / p. 402-407 <https://doi.org/10.4028/www.scientific.net/DDF.405.402> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Sliding wear of chromium carbide based cermets under different wear conditions

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovič, Sergei Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [2] 2008 / p. 455-459 : ill
<http://innomet.ttu.ee/daaam08/Online/Materials%20Engineering/Juhani.pdf>

Sliding wear of composite stainless steel hardfacing under room and elevated temperature

Surženkov, Andrei; Baroninš, Janis; Viljus, Mart; Traksmäa, Rainer; Kulu, Priit Materials Engineering 2017 : selected, peer reviewed papers from the 26th International Baltic Conference on Materials Engineering 2017, October 26-27, Kaunas, Lithuania 2017 / p. 195-200 : ill <https://doi.org/10.4028/www.scientific.net/SSP.267.195> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Sliding wear of Cr₃C₂-Ni base cermets

Letunovič, Sergei; Viljus, Mart; Pirso, Jüri Medžiagotyra = Materials science 2002 / 4, p. 477-480 : ill

Sliding wear of Cr₃C₂-Ni cermets

Letunovič, Sergei; Viljus, Mart; Pirso, Jüri Abstracts of International Conference Materials Engineering and Tribology 2002 / p. 9

Sliding wear of the cermets

Letunovič, Sergei; Pirso, Jüri; Viljus, Mart Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 70

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 of TiC-NiMo cermets

Pirso, Jüri; Letunovič, Sergei; Viljus, Mart Tribology international 2004 / p. 817-824 : ill

Slurry erosion resistance of Cr₃C₂-Ni cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart International Powder Metallurgy Congress & Exhibition : EURO PM2009 : 12th October - 14th October 2009, Copenhagen, Denmark : proceedings. Vol.1 2009 / p. 305-310 : ill
https://www.researchgate.net/publication/288472950_Slurry_erosion_resistance_of_Cr3C2-Ni_cermets

Slurry erosion wear of TiC-NiMo and WC-Co cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [Il] 2010 / p. 456-461 : ill

Slurry erosion-corrosion of TiC-NiMo cermets

Pirso, Jüri; Viljus, Mart; Kübarsepp, Jakob Advances in Powder Metallurgy & Particulate Materials - 1999. Part 11, Cermets & Refractory Metals 1999 / p. 11-29 - 11-35 : ill

Species-specific morphology of the endolymphatic openings in the headshields of the osteostracan genus Tremataspis (Agnatha), from the Silurian of Estonia

Märss, Tiit; Wilson, Mark V.H.; Viljus, Mart 16th International Symposium on Early and Lower Vertebrates - Honoring Tiit Märss & Philippe Janvier : Conference programme and abstracts : Valencia, Spain, 2022 2022 / p. 6 http://iselv.uv.es/wp-content/uploads/2022/06/Abstract-Book-16ISELV_web.pdf

Steels, hardmetals and hardfacings for abrasive wear applications

Kulu, Priit; Tarbe, Riho; Saarna, Mart; Surženkov, Andrei; Peetsalu, Priidu; Viljus, Mart European Conference on Heat Treatment and 21st IFHTSE Congress : May, 12th-15th, 2014, Munich, Germany : proceedings 2014 / p. 449-456 : ill

Structure and properties evolution of superalloy in zone of uniform deformation by electroupsetting

Kommel, Lembit; Viljus, Mart EUROMAT 2001 : 7th European Conference on Advanced Materials and Processes : Rimini, Italy, 10-14 June, 2001 : conference abstracts 2001 / p. 402-403

Structure and properties evolution of superalloy in zone of uniform deformation by electroupsetting [Electronic resource]

Kommel, Lembit; Viljus, Mart Proceedings of 7th European Conference on Advanced Materials and Processes : EUROMAT 2001 : Italy 2001 / [CD-ROM]

Structure formation and characteristics of chromium carbide-iron-titanium cermets

Kolnes, Märt; Pirso, Jüri; Kübarsepp, Jakob; Viljus, Mart; Traksmäa, Rainer Proceedings of the Estonian Academy of Sciences 2016 / p. 138-143 : ill <https://doi.org/10.3176/proc.2016.2.09> https://artiklid.elnet.ee/record=b2768217*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Structure formation and distribution of elements in the TiC-NiMo cemented carbides

Viljus, Mart; Pirso, Jüri Powder Technology 95 : Vth Baltic Conference, November 7-8, 1995, Tallinn 1995 / I. 24-25
https://www.ester.ee/record=b1492085*est

Structure formation in Ti-C-Ni-Mo composites during reactive sintering

Viljus, Mart; Pirso, Jüri; Juhani, Kristjan; Letunovič, Sergei Materials science = Medžiagotyra 2012 / p. 62-65 : ill

Structure formation of Cr₃C₂ - base cermets during sintering

Pirso, Jüri; Viljus, Mart Proceedings of 2000 Powder Metallurgy World Congress : November 12-16, 2000, Kyoto, Japan. Part 2 2000 / p. 1265-1268 : 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; Traksmäa, Rainer; Antonov, Maksim; Kulu, Priit 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](#)

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 Nb and Mo on the microstructural formation of the Ti(C,N)-high chromium ferrous-based cermets
Maurya, Himanshu Singh; Juhani, Kristjan; Tarraste, Marek; Viljus, Mart; Sergejev, Fjodor; Pampori, Tabeen Halawat; Hussain, Abrar; Kübarsepp, Jakob International journal of refractory metals and hard materials 2024 / art. 106723
<https://doi.org/10.1016/j.ijrmhm.2024.106723>

Synthesis of an WC-Co composite material from the waste WC-Co bulk hardmetal

Joost, Renee; Pirso, Jüri; Viljus, Mart 17th International Baltic Conference : Materials Engineering 2008 : November 6-7, Kaunas, Lithuania : abstracts of papers 2008 / p. 28

Synthesis of nanocrystalline TiC powders by reactive milling

Viljus, Mart; Pirso, Jüri; Letunovitš, Sergei Nanopowders, Nanostructured Materials and Coatings : Network for Nanostructured Materials of ACC : March 17, 2005, Tallinn, Estonia : book of abstracts 2005 / p. 28-30 : ill

Synthesis of TiC by mechanical activation of powder components

Viljus, Mart; Traksmäa, Rainer; Letunovitš, Sergei; Pirso, Jüri EURO PM2001 : [European Congress and Exhibition on Powder Metallurgy] : October 22-24, 2001, Nice, France. Vol. 1 : proceedings 2001 / p. 194-198 : ill

Synthesis of TiC powder by mechanical activation

Viljus, Mart; Traksmäa, Rainer; Letunovitš, Sergei; Pirso, Jüri Materials Engineering & Balttrib 2001 : materials of the X-th International Baltic Conference : September 27-28, Jurmala, Latvia 2001 / p. 18-21 : ill

ZnCdSeTe radiation detectors

Valdna, Vello; Hiie, Jaan; Strandberg, Marek; Traksmäa, Rainer; Viljus, Mart Optoelectronic Devices : Physics, Fabrication and Application. III 2006 / [6] p https://www.researchgate.net/publication/253057744_ZnCdSeTe_radiation_detectors

ZnCdSeTe semiconductor compounds : preparation and properties

Valdna, Vello; Grossberg, Maarja; Hiie, Jaan; Kallavus, Urve; Mikli, Valdek; Raadik, Taavi; Traksmäa, Rainer; Viljus, Mart MRS proceedings 2011 / p. u07-15 <https://www.cambridge.org/core/journals/mrs-online-proceedings-library-archive/article/abs/zncdsete-semiconductor-compounds-preparation-and-properties/49279438DA7FE99A846F54C38F77A46D>

Technological peculiarities of chromium carbide-based iron alloy bonded cermet

Kolnes, Märt; Kübarsepp, Jakob; Viljus, Mart; Traksmäa, Rainer Materials Engineering 2017 : selected, peer reviewed papers from the 26th International Baltic Conference on Materials Engineering 2017, October 26-27, Kaunas, Lithuania 2017 / p. 82-86 : ill
<https://doi.org/10.4028/www.scientific.net/SSP.267.82> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Template synthesis of titanium dioxide coatings and determination of their photocatalytic activity by aqueous oxidation of humic acid

Budarnaja, Olga; Klauson, Deniss; Dedova, Tatjana; Kärber, Erki; Viljus, Mart; Preis, Sergei Kinetics and catalysis 2014 / p. 688-694 : ill <https://doi.org/10.1134/S0023158414050036> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The conservation of early post-medieval period coins found in Estonia

Viljus, Aive; Viljus, Mart Journal of conservation and museum studies 2012 / p. 30-44 : ill <https://jcms-journal.com/articles/10.5334/jcms.1021204>

The effect of carbon content on the mechanical and tribological properties of WC-Co cemented carbides

Joost, Renee; Pirso, Jüri; Viljus, Mart Proceedings of Nordtrib 2008 : 13th Nordic Symposium on Tribology : Tampere, Finland, 10-13 June, 2008 2008 / [8] p. : ill

The effect of the firing temperature on the hardness of alumina porcelain

Štubna, Igor; Šin, Peter; Viljus, Mart; Trnik, Anton Materials and technology = Materiali in tehnologije 2014 / p. 331-336 : ill
<http://mit.imt.si/izvodi/mit143/stubna.pdf> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The effect of VC, TiC and Cr₃C₂ on the microstructure and properties of WC-15Co hardmetals fabricated by the reactive sintering

Pirso, Jüri; Juhani, Kristjan; Tarraste, Marek; Viljus, Mart; Letunovitš, Sergei Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 383-388 : ill

The effect of VC, TiC and Cr₃C₂ on the microstructure and properties of WC-15CO hardmetals fabricated by the reactive sintering

Pirso, Jüri; Juhani, Kristjan; Tarraste, Marek; Viljus, Mart; Letunovitš, Sergei Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 383-388 : ill

The formation of reactive sintered (Ti, Mo)C-Ni cermet from nanocrystalline powders

Jõelet, Marek; Pirso, Jüri; Juhani, Kristjan; Viljus, Mart; Traksmäa, Rainer International journal of refractory metals and hard materials 2014 / p. 284-290 : ill <https://doi.org/10.1016/j.jrmhm.2013.12.016> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

The influence of carbon and molybdenum in reactive sintered (Ti, Mo)C-NiCr cermets [Electronic resource]

Jõelet, Marek; Pirso, Jüri; Juhani, Kristjan; Viljus, Mart Euro PM2015 Congress & Exhibition : proceedings : 4-7 October 2015, Reims Congress Centre, Reims, France 2015 / [USB]

The influence of content and production parameters on the structure and mechanical properties of TiC-NiMo cemented carbides

Pirso, Jüri; Viljus, Mart Tallinna Tehnikaülikooli Toimetised 1994 / lk. 77-90: ill

The influence of Cr₃C₂ and VC as alloying additives on the microstructure and properties of reactive sintered WC-Co cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovits, Sergei; Tarraste, Marek Materials science = Medžiagotyra 2012 / p. 79-83 : ill <https://matsc.ktu.lt/index.php/MatSc/article/view/1347>

The influence of high energy milling and sintering parameters on reactive sintered (Ti, Mo)C-Ni cermets

Jõelet, Marek; Pirso, Jüri; Juhani, Kristjan; Viljus, Mart; Traksmäa, Rainer Journal of alloys and compounds 2015 / p. 381-386 : ill <https://doi.org/10.1016/j.jallcom.2015.02.071> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

The influence of processing parameters on mechanical properties of spark plasma sintered chromium carbide based cermets

Juhani, Kristjan; Pirso, Jüri; Tarraste, Marek; Viljus, Mart; Letunovits, Sergei Materials Engineering 2017 : selected, peer reviewed papers from the 26th International Baltic Conference on Materials Engineering 2017, October 26-27, Kaunas, Lithuania 2017 / p. 162-166 <https://doi.org/10.4028/www.scientific.net/SSP.267.162> Conference proceedings at Scopus Article at Scopus

The influence of reactive sintering parameters on the structure and properties of Cr₃C₂-Ni cermets

Viljus, Mart; Letunovits, Sergei; Traksmäa, Rainer; Pirso, Jüri Abstracts of International Conference Materials Engineering and Tribology 2002 / p. 15

The influence of reactive sintering parameters on the structure and properties of Cr₃C₂-Ni cermets

Viljus, Mart; Letunovits, Sergei; Traksmäa, Rainer; Pirso, Jüri Medžiagotyra = Materials science 2002 / 4, p. 473-476 : ill

The influence of Sinter/HIP sintering on the properties of chromium carbide based cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart Proceedings of European Powder Metallurgy Congress : EURO PM2007 : Toulouse (France), 15-17 October 2007. Vol. 1 2007 / p. 209-213

The influence of sinter/HIP technology on reactive sintering of chromium carbide based cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovits, Sergei 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 23

The influence of sintering temperature of reactive sintered (Ti, Mo)C-Ni cermets

Jõelet, Marek; Pirso, Jüri; Juhani, Kristjan; Viljus, Mart Medžiagotyra = Materials science 2015 / p. 435-438 : ill <https://doi.org/10.5755/j01.ms.21.3.7179> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

The influence of TiC powder to reactive sintered TiC-NiMo cermets microstructure and mechanical properties [Electronic resource]

Jõelet, Marek; Pirso, Jüri; Juhani, Kristjan; Viljus, Mart Proceedings of the 18th Plansee Seminar : International Conference on Refractory Metals and Hard Materials : Reutte/Austria, 3-7 June, 2013 2013 / p. HM 71/1-HM 71/7 [CD-ROM]

The microstructure and properties of fine-grained cermets

Viljus, Mart 2003

The structure and properties of recycled hardmetals

Joost, Renee; Pirso, Jüri; Viljus, Mart 17th Plansee Seminar : International Conference on High Performance P/M Materials : Reutte, Austria, 25-29.05.2009 : proceedings. Vol. 2 2009 / p. HM25/1-HM25/7

The structure formation of TiC-NiMo hardmetals during the sintering process

Viljus, Mart; Pirso, Jüri; Traksmäa, Rainer Proceedings of Joint Nordic Conference in Powder Technology : May 5-6, 1999, Oslo, Norway 1999 / p. 13

The study of the laser hardening parameters on the structure and the mechanical properties of the PM steel Vanadis 6

Surženkov, Andrei; Latokartano, Jyrki; Vuoristo, Petri; Kulu, Priit; Viljus, Mart; Vallikivi, Ahto 18th International Baltic Conference

Thermal behavior of ceramic bodies based on Estonian clay from the Arumetsa deposit with oil shale ash and clinker dust additives

Kaljuvee, Tiit; Uibu, Mai; Einard, Marve; Traksmäa, Rainer; Viljus, Mart; Jefimova, Jekaterina; **Triikkel, Andres** Processes 2022 / art. 46 <https://doi.org/10.3390/pr10010046> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal behaviour of ceramic bodies based on Estonian clay from Arumetsa deposit with oil shale ash or/and clinker dust additives

Kaljuvee, Tiit; Štubna, Igor; Hulan, Tomaš; Uibu, Mai; Einard, Marve; Traksmäa, Rainer; Viljus, Mart; Jefimova, Jekaterina; **Triikkel, Andres** ICTAC 2020 : 17th International Congress on Thermal Analysis and Calorimetry : 8th Joint Czech-Hungarian-Polish-Slovakian Thermoanalytical Conference (V4 8) : 14th Conference on Calorimetry and Thermal Analysis of the Polish Society of Calorimetry and Thermal Analysis (CCTA 14), online conference, [Kraków], 29 August - 2 September 2021 : e-book of abstracts, 2021 2021 / p. 68 https://cris.vub.be/ws/portalfiles/portal/74787050/_e_Book_of_Abstracts_ICTAC2020.pdf

Three-body abrasive wear of cermets

Pirso, Jüri; Viljus, Mart; Letunovičs, Sergei; Juhani, Kristjan; Joost, Renee Wear 2011 / p. 2868-2878 : ill

Three-body abrasive wear of reactive sintered WC-Co hardmetals with grain growth inhibitors

Juhani, Kristjan; Pirso, Jüri; Tarraste, Marek; Viljus, Mart; Suurkivi, Taavi Engineering materials & tribology XXII 2014 / p. 277-282 <https://doi.org/10.4028/www.scientific.net/KEM.604.277> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

Three-body abrasive wear of TiC-NiMo cermets

Pirso, Jüri; Viljus, Mart; Juhani, Kristjan; Kuningas, Marius Tribology international 2010 / 1/2, p. 340-346 : ill

Three-body abrasive wear of WC-Co composites manufactured by reactive sintering of nanocrystalline powders [Electronic resource]

Juhani, Kristjan; Joost, Renee; Pirso, Jüri; Letunovičs, Sergei; Viljus, Mart; Tarraste, Marek 5th World Tribology Congress, WTC 2013 : [proceedings]. Vol. 3 2014 / p. 2084-2087. [CD-ROM]

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](#)

Transition from self-organized criticality into self-organization during sliding Si3N4 balls against nanocrystalline diamond films

Bogatov, Andrei; Podgurski, Vitali; Vagiström, Heinar; Yashin, Maxim; Shaikh, Asad Alamgir; Viljus, Mart; Menezes, Pradeep; Gershman, Isif Entropy 2019 / art. 1055 ; 12 p <https://doi.org/10.3390/e21111055> [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 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 <https://doi.org/10.1016/j.surfcoat.2013.03.011> <https://www.sciencedirect.com/science/article/pii/S0257897213002636?via%3Dihub> [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://fntdk.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

Two body dry abrasive wear of TiC-NiMo cermets

Pirso, Jüri; Viljus, Mart; Juhani, Kristjan Tribology - materials, surfaces & interfaces 2007 / 2, p. 68-72

Two-body abrasive wear of WC-Co hardmetals in wet and dry environments

Pirso, Jüri; Juhani, Kristjan; Viljus, Mart; Letunovitš, Sergei Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 711-716 : ill

Two-body dry abrasive wear of cermets

Pirso, Jüri; Viljus, Mart; Juhani, Kristjan; Letunovitš, Sergei Wear 2009 / 1/2, p. 21-29 : ill

Two-body dry abrasive wear of Cr₃C₂-Ni cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei Proceedings of the Estonian Academy of Sciences. Engineering 2006 / 4, p. 368-376 : ill

Two-body dry abrasive wear of Cr₃C₂-Ni cermets

Juhani, Kristjan; Pirso, Jüri; Viljus, Mart; Letunovitš, Sergei 15th International Baltic Conference "Engineering Materials & Tribology. Baltmattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 58-59 : ill

Ultrafine cemented carbides with cobalt and iron binders prepared via reactive in situ sintering

Tarraste, Marek; Kübarsepp, Jakob; Mere, Arvo; Juhani, Kristjan; Kolnes, Märt; Viljus, Mart Solid state phenomena ; 320 2021 / p. 176-180 <https://doi.org/10.4028/www.scientific.net/SSP.320.176> Conference Proceedings at Scopus Article at Scopus

Uus meetod kuubiliste ZnS monokristallide kasvatamiseks

Lott, Kalju; Paat, Aadu; Viljus, Mart; Gorokhova, Elena; Ananjeva, G. XXV Eesti keemiapäevad : teaduskonverentsi ettekannete referaadid = 25th Estonian Chemistry Days : abstracts of scientific conference 1999 / lk. 87-88

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://fmdk.ut.ee/wp-content/uploads/2021/06/GSFMT_abstractbook_2021.pdf

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

Kolnes, Mart; Kübarsepp, Jakob; Sergejev, Fjodor; Kolnes, Märt; Tarraste, Marek; Viljus, Mart Solid state phenomena ; 320 2021 / p. 144–149 <https://doi.org/10.4028/www.scientific.net/SSP.320.144> Conference proceedings at Scopus Article at Scopus

Wear behaviour of Cr₃C₂-Ni cermet reinforced hardfacings

Bendikiene, Regita; Ciuplys, Antanas; Sertytis, Rolandas; Surženkov, Andrei; Tkachivskyi, Dmytro; Viljus, Mart; Traksmaa, 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 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 Journal of materials research and technology 2025 / p. 7016-7025 <https://doi.org/10.1016/j.jmrt.2025.04.317>

Wear performance of TiC-base cermets

Roosaar, Tõnu; Kübarsepp, Jakob; Klaasen, Heinrich; Viljus, Mart Materials science 2008 / p. 238-241 : ill

Wear performance of TiC-base cermets

Roosaar, Tõnu; Kübarsepp, Jakob; Klaasen, Heinrich; Viljus, Mart 17th International Baltic Conference : Materials Engineering 2008 : November 6-7, Kaunas, Lithuania : abstracts of papers 2008 / p. 32

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 and mechanisms of composite hardfacings at abrasive impact erosion wear

Surženkov, Andrei; Viljus, Mart; Simson, Taavi; Tarbe, Riho; Saarna, Mart; Casesnoves, Francisco Journal of physics : conference series 2017 / art. 012060, p. 1-10 : ill <https://doi.org/10.1088/1742-6596/843/1/012060> Journal metrics at Scopus Article at Scopus Article at WOS

Wear resistance of HVOF sprayed coatings from mechanically activated thermally synthesized Cr₃C₂-Ni spray powder

Sarjas, Heikki; Kulu, Priit; Juhani, Kristjan; Viljus, Mart; Matikainen, Ville; Vuoristo, Petri Proceedings of the Estonian Academy of Sciences 2016 / p. 101-106 : ill https://artiklid.elnet.ee/record=b2768209*est <https://doi.org/10.3176/proc.2016.2.10> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear resistance of sintered composite hardfacings under different abrasive wear conditions

Simson, Taavi; Kulu, Priit; Surženkov, Andrei; Tarbe, Riho; Goljandin, Dmitri; Tarraste, Marek; Viljus, Mart; Traksmäa, Rainer Medžiagotyra = Materials science 2017 / p. 249-253 : ill <https://doi.org/10.5755/j01.ms.23.3.17640> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear resistant self-fluxing alloy based TiC-NiMo and Cr₂C₃-Ni hardmetal particles reinforced composite coatings

Surženkov, Andrei; Vallikivi, Ahto; Mikli, Valdek; Viljus, Mart; Vilgo, Timo; Kulu, Priit Proceedings of the 2nd International Scientific Conference Manufacturing Engineering & Management 2012 : ICMEM 2012 2012 / p. 33-36 : ill https://www.researchgate.net/publication/262731588_WEAR_RESISTANT_SELF-FLUXING_ALLOY_BASED_TIC-NIMO_AND_CR2C3-NI_HARDMETAL_PARTICLES_REINFORCED_COMPOSITE_COATINGS

Влияние легирующих элементов на структуру и свойства сплавов TiC-Ni-Mo

Pirso, Jüri; Viljus, Mart Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 8-9

[Репродукции]

Viljus, Mart Радуга 2005 / 2, с. 34-35, 38-39, 42-43, 46-47