

**Abrasive erosion of non-tungsten cemented carbides**

**Pirso, Jüri; Kallas, Paul** Powder Technology 95 : Vth Baltic Conference, November 7-8, 1995, Tallinn 1995 / I. 30-33  
[https://www.ester.ee/record=b1492085\\*est](https://www.ester.ee/record=b1492085*est)

**Abrasive wear and erosion of titanium carbide based cermets**

**Pirso, Jüri; Kübarsepp, Jakob** EURO PM'99 : European Conference on Advances in Hard Materials Production : Turin, Italy, November 8-10, 1999 : proceedings 1999 / p. 423-428: ill

**Abrasive wear and mechanical properties of carbide composites**

**Kübarsepp, Jakob; Klaasen, Heinrich; Roosaar, Tõnu; Annuka, Harri** 15th International Baltic Conference "Engineering Materials & Tribology. Baltattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 56-57 : ill

**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 wear performance of carbide composites**

**Klaasen, Heinrich; Kübarsepp, Jakob** Wear 2006 / p. 520-526 : ill <https://doi.org/10.1016/j.wear.2005.12.004>

**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 behaviour of carbide composites and tool steels**

**Annuka, Harri; Klaasen, Heinrich; Kübarsepp, Jakob; Suvi, Vahur** Proceedings of the 4th International Conference Industrial Engineering - New Challenges to SME : 29-30 April 2004, Tallinn, Estonia 2004 / p. 175-176 : ill

**Assessment of residual stresses in steels and carbide composites by load and depth sensing indentation with spherical indenter**

**Sergejev, Fjodor; Petrov, Mihail** Estonian journal of engineering 2012 / p. 259-269 : ill

**Assessment of the erosion resistance of carbides based cermets**

**Hussainova, Irina; Kübarsepp, Jakob; Pirso, Jüri** Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 74

**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

**Behaviour of hard alloys in sliding and erosion wear conditions**

**Kübarsepp, Jakob; Vainola, Vello; Klaasen, Heinrich; Loel, Rein** Proceedings of the 4th International Conference Industrial Engineering - New Challenges to SME : 29-30 April 2004, Tallinn, Estonia 2004 / p. 203-206 : ill

**Blanking performance and fatigue endurance of carbide composites**

**Klaasen, Heinrich; Kübarsepp, Jakob; Preis, Irina; Sergejev, Fjodor; Traksmäa, Rainer** Proceedings of 10th International Conference and Exhibition of the European Ceramic Society : June 17-21, 2007, Berlin 2007 / [4] p

**Boron carbide based composites manufacturing and recycling features**

**Kommel, Lembit; Kimmari, Eduard** Materials science = Medžiagotyra 2006 / 1, p. 48-52 : ill

**Boron carbide based composites microstructure and properties relationships to processing features**

**Kommel, Lembit; Kübarsepp, Jakob; Klaasen, Heinrich** European Powder Metallurgy Conference on Meeting the Challenges of a Changing Market Place : EURO PM2003 : Valencia, Spain, October 20-22, 2003 : conference proceedings. Volume 2 2003 / p. 87-92

**Carbide grain growth in Cr<sub>3</sub>C<sub>2</sub>-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

**Recherches sur la roue phonique : premiere these; [Carbure de Calcium] : Propositions donees par la Faculte : deuxieme these**

**Freymuth, Helmuth** 1924 [https://www.ester.ee/record=b5476840\\*est](https://www.ester.ee/record=b5476840*est)

**Cemented carbides surface fatigue prediction using Murakami approach**

**Sergejev, Fjodor; Preis, Irina; Kübarsepp, Jakob; Klaasen, Heinrich** Proceedings of EURO PM 2006 Congress & Exhibition :

**Combined sol-gel and carbothermal synthesis of ZrC-TiC powders for composites**

Umalas, Madis; **Hussainova, Irina**; Reedo, Valter; **Yung, Der-Liang** Materials chemistry and physics 2015 / p. 301-306 : ill  
<https://doi.org/10.1016/j.matchemphys.2015.01.017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Combustion synthesis of nanoscale boron and silicon carbides**

Zakaryan, Marieta; Amirkhanyan, Narine; Kirakosyan, Hasmik; Zurnachyan, Alina; **Aydinyan, Sofiya** CIMTEC 2022 : 15th International Ceramics Congress (June 20-24) CIMTEC 2022 : 9th Forum on New Materials (June 25-29) 2022 [http://2022.cimtec-congress.org/focused-session-ca-11\\_1](http://2022.cimtec-congress.org/focused-session-ca-11_1)

**Comparative study of microstructure and mechanical properties of Mg/B4C composites: Influence of sintering method and temperature**

Ghasali, Ehsan; **Kariminejad, Arash**; Raza, Saleem; Orooji, Yasin; Paimard, Giti; Babenko, Andrii; Jie, Li; Ebadzadeh, Touradj Materials chemistry and physics 2024 / art. 129876 <https://doi.org/10.1016/j.matchemphys.2024.129876> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**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; Surzenkov, 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 carbon aerogel and carbide-derived carbon as electrode materials for non-aqueous supercapacitors with high performance**

Laheäär, Ann; **Peikolainen, Anna-Liisa; Koel, Mihkel**; Jänes, Alar; Lust, Enn Journal of solid state electrochemistry 2012 / p. 2717-2722 : ill <https://link.springer.com/article/10.1007/s10008-012-1660-4>

**Comparison of carbon aerogel and carbide-derived carbon as electrode materials for non-aqueous supercapacitors with high performance**

Laheäär, Ann; **Peikolainen, Anna-Liisa; Koel, Mihkel**; Jänes, Alar; Lust, Enn The 63rd Annual Meeting of International Society of Electrochemistry : 19.-24.08.2012, Praha 2012 / Abstract #s04-068 <https://link.springer.com/article/10.1007/s10008-012-1660-4>

**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

**Compound carbide composites produced by diffusion bonding**

**Kübarsepp, Jakob; Klaasen, Heinrich; Laansoo, Andres** EURO PM2001 : [European Congress and Exhibition on Powder Metallurgy] : October 22-24, 2001, Nice, France. Vol. 1 : proceedings 2001 / p. 158-163 : ill

**Contact reactions of titanium carbide with iron-base alloys**

Panasjuk, A.; **Kübarsepp, Jakob**; Dzökovitš, I.; **Valdma, Leo** Soviet Powder Metallurgy and Metal Ceramics 1981 / p. 291-296  
<https://doi.org/10.1007/BF00797271>

**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

**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 : experimental validation**

**Sergejev, Fjodor; Preis, Irina; Kübarsepp, Jakob** Book of abstracts : International Symposium on Fatigue Design and Material Defects : Trondheim, Norway, 23-25 May 2011 2011 / p. 32-33

**Densification and characterization of spark plasma sintered ZrC-ZrO<sub>2</sub> composites**

**Hussainova, Irina; Voltšihhin, Nikolai**; Cura, M. Erkin; Hannula, Simo-Pekka Materials science and engineering : A - structural materials: properties, microstructure and processing 2014 / p. 75-81 : ill <https://doi.org/10.1016/j.msea.2013.12.058> [Journal metrics at](#)

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

**Voltšihin, Nikolai** 2014 [https://www.ester.ee/record=b4438763\\*est](https://www.ester.ee/record=b4438763*est)

**Determination of the mechanical properties of carbide composites by spherical indentation**

**Sergejev, Fjodor; Petrov, Mihhail; Kübarsepp, Jakob** Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 723-728 : ill

**Directly electrospun electrodes for electrical double-layer capacitors from carbide-derived carbon**

**Malmberg, Siret; Arulepp, Mati; Savest, Natalja; Tarasova, Elvira; Vassiljeva, Viktoria; Krasnou, Illia; Käärrik, Maike; Mikli, Valdek; Krumme, Andres** Journal of electrostatics 2020 / art. 103396, 7 p. : ill <https://doi.org/10.1016/j.elstat.2019.103396> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**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 atomic layer deposited aluminium oxide on mechanical properties of porous silicon carbide**

**Jõgiaas, Taivo; Kollo, Lauri; Kozlova, Jekaterina; Tamm, Aile; Hussainova, Irina; Kukli, Kaupo** Ceramics international 2015 / p. 7519-7528 : ill <https://doi.org/10.1016/j.ceramint.2015.02.074> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

**Petrov, Mihhail; 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 carbon content on the microstructure and phases of (Ti,V,Nb,Cr,Mo)Cx high-entropy carbide**

**Anwar, Furqan; Tarraste, Marek; Berger, Lutz-Michael; Pötschke, Johannes** Proceedings of the Estonian Academy of Sciences 2025 / p. 132-136 : ill <https://doi.org/10.3176/proc.2025.2.08>

**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. [III] 2010 / p. 450-455 : ill

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

**Yöyler, Sibel; Surzhenkov, Andrei; Viljus, Mart; Traskmaa, 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>

**Effect of sintering method on surface fatigue of carbide composites**

**Petrov, Mihhail; 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 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

**Effects of the inclusion of armchair graphene nanoribbons on the electrical conduction properties of NN-heterojunction 4H-6H/SiC diodes**

**Rashid, Muhammad Haroon; Koel, Ants; Rang, Toomas** Advanced Materials and Processing Technologies : 2nd International Conference on Sensors, Materials and Manufacturing (ICSMM 2018, November 19-21, 2018, Taiwan); International Conference on Materials Sciences and Nanomaterials (ICMSN 2018, July 11-13, 2018, United Kingdom) and the 2nd International Conference on Materials and Intelligent Manufacturing (ICMIM 2018, August 24-26, 2018, Japan) 2019 / p. 29-35 : ill <https://doi.org/10.4028/www.scientific.net/MSF.962.29> [Conference proceeding at Scopus](#) [Article at Scopus](#)

**Elaboration of method for preparation of IVB group metal carbides nanocomposites**

**Umalas, Madis; Reedo, Valter; Lõhmus, Ants; Hussainova, Irina** Functional Materials & Nanotechnologies : Riga, 5-8 April 2011 2011 / [1] p

**Electrochemical evaluation of directly electrosynthesized carbide-derived carbon-based electrodes in different nonaqueous electrolytes for energy storage applications**

**Malmberg, Siret; Arulepp, Mati; Tarasova, Elvira; Vassiljeva, Viktoria; Krasnou, Illia; Krumme, Andres C** – journal of carbon research 2020 / art. 59, 16 p. : ill <https://doi.org/10.3390/c6040059>

**Electroreduction of oxygen on carbide-derived carbon supported Pd catalysts**

**Lüsi, Madis; Erikson, Heiki; Sarapuu, Ave; Merisalu, Maido; Rähn, Mihkel; Treshchalov, Alexey; Paiste, Päärn; Käär, Maik; Leis, Jaan; Sammelselg, Väino; Kaljuvee, Tiit; Tammeveski, Kaido** GSFMT Scientific Conference 2020 : Tallinn, February 4-5, 2020 : abstracts 2020 / p. 57 : ill <https://fntdk.ut.ee/wp-content/uploads/2020/01/GSFMT2020.pdf> <https://doi.org/10.1002/celc.201902136> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**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 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 Stainless Steel-Based Hardfacings with Ex-Situ and In-Situ Synthesized TiC**

**Yöyler, Sibel; Surženkov, Andrei; Tarraste, Marek; Kolnes, Märt; Juhani, Kristjan** Coatings 2025 / art. 658 <https://doi.org/10.3390/coatings15060658>

**Estimation of the endurance limit of cemented carbides based on pore size**

**Preis, Irina; Gray, Marquis; Sergejev, Fjodor** Proceedings of Fatigue 2006, the 9th International Fatigue Congress : Atlanta, GA, 14-19 May 2006 2006 / [9] p. : ill

**Fatigue mechanics of carbide composites**

**Sergejev, Fjodor; Klaasen, Heinrich; Kübarsepp, Jakob; Preis, Irina** International journal of materials & product technology 2011 / p. 140-163 : ill

**Fatigue performance of carbide composites**

**Klaasen, Heinrich; Kübarsepp, Jakob; Preis, Irina; Sergejev, Fjodor** EURO PM2005 : congress & exhibition : 2-5 October 2005, Prague, Czech Republic : proceedings. Volume 1 2005 / p. 323-328 : ill

**Fatigue strength prediction of carbide composites by considering pores to be equivalent to small defects : effect of hot isostatic pressing**

**Sergejev, Fjodor; Preis, Irina; Kübarsepp, Jakob** Book of abstracts : International Symposium on Fatigue Design and Material Defects : Trondheim, Norway, 23-25 May 2011 2011 / p. 41-42

**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](#)

**Friction and wear behaviour of cemented carbides**

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

**Friction and wear changes of boron carbide cermet depending on the structure**

**Kommel, Lembit; Kimmari, Eduard** Abstracts of International Conference Materials Engineering and Tribology 2002 / p. 35

**Friction and wear changes of boron carbide cermets depending on the structure**

**Kommel, Lembit; Kimmari, Eduard** Materials science = Medžiagotyra 2003 / 1, p. 51-53 : ill

**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 BALTMATTRIB 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://www.ester.ee/record=b5235278*est) <https://doi.org/10.4028/www.scientific.net/KEM.799.136> [Conference proceeding at Scopus](#) [Article at Scopus](#)

**Impact of ball-milling of carbide-derived carbons on the generation of hydrogen peroxide via electroreduction of oxygen in alkaline media**

**Palm, Iris; Kibena-Pöldsepp, Elo; Lilloja, Jaana; Paiste, Päärn** Journal of electroanalytical chemistry 2020 / art. 114690 <https://doi.org/10.1016/j.jelechem.2020.114690> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Influence of different reinforcing particles on the scratch resistance and microstructure of different WC–Ni composites**

Marou Alzouma, O.; Azman, M.-A.; Yung, Der-Liang; Fridrici, V.; Kapsa, Ph. Wear 2016 / p. 130-135 : ill

<https://doi.org/10.1016/j.wear.2016.02.011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Influence of microstructure and chemical composition on toughness and wear resistance of carbide composites**

Petrov, Mihhail TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p. : ill

### **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](#)

### **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>

### **Karbiidkomposiitide abrasiiv-erosioon- ja hõõrdekulumine**

Vainola, Vello; Kübarsepp, Jakob; Klaasen, Heinrich; Loel, Rein Tallinna Tehnikakõrgkooli Toimetised 2004 / lk. 66-71 : ill

### **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](#)

### **Mechanical and structural characterization of multiphase B4C/Al composites synthesized by SHS**

Kimmari, Eduard; Kommel, Lembit 15th International Baltic Conference "Engineering Materials & Tribology. Baltmattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 33-34

### **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](https://www.researchgate.net/publication/239937576_Mechanical_Properties_and_Microstructure_of_Reactive_Sintered_WC-TiC-Co_Cemented_Carbides)

### **Mechano-electrical impedance of a carbide-derived carbon-based laminate motion sensor at large bending deflections**

Must, Indrek; Anton, Mart; Viidalepp, Erki; Põldsalu, Inga; Punning, Andres; Aabloo, Alvo Smart Materials and Structures 2013 / art. 104015 <https://doi.org/10.1088/0964-1726/22/10/104015> [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]

### **Murakami approach : fatigue strength prediction of cemented carbides by considering pores to be equivalent to small defects**

Sergejev, Fjodor; Preis, Irina; Klaasen, Heinrich; Kübarsepp, Jakob EURO PM2005 : congress & exhibition : 2-5 October 2005, Prague, Czech Republic : proceedings. Volume 1 2005 / p. 335-340 : ill

### **Nano- and Micro-Scale simulations of Ge/3C-SiC and Ge/4H-SiC NN-heterojunction diodes**

Rashid, Muhammad Haroon; Koel, Ants; Rang, Toomas Silicon Carbide and Related Materials 2019 : 18th International Conference on Silicon Carbide and Related Materials 2019 (ICSCRM 2019), Kyoto, Japan, September 29 - October 4, 2019 Materials science forum 2020 / p. 490-496 <https://doi.org/10.4028/www.scientific.net/MSF.1004.490> [Conference proceedings at Scopus](#) [Article at Scopus](#)

### **Nanoscale and microscale simulations of N-N junction heterostructures of 3C-4H silicon carbide**

Rashid, Muhammad Haroon; Koel, Ants; Rang, Toomas; Gähwiler, Reto; Grosberg, Martin; Jõemaa, Rauno Materials and contact characterisation VIII 2017 / p. 235-248 : ill <https://doi.org/10.2495/MC170241> [Conference proceedings at Scopus](#) [Article at Scopus](#)

### **Nanosize molybdenum carbide preparation by sol-gel combustion synthesis with subsequent fast heating**

Kirakosyan, Hasmik; Nazaretyan, Khachatur; Kirakosyan, Khachatur; Tumanyan, M.E.; Aydinyan, Sofiya; Kharatyan, Suren Chemical Journal of Armenia 2017 / p. 11-19 : ill <http://chemistry.asj-oa.am/id/eprint/7782>

### **Nanosized molybdenum carbide synthesized by solution combustion synthesis with subsequent thermal treatment**

Nazaretyan, Khachik; Kirakosyan, Hasmik; Aydinyan, Sofiya; Kharatyan, Suren SHS 2017 : XIV International Symposium On Self-

#### **A new synthesis pathway for molybdenum carbide nanopowder by solution combustion**

Kirakosyan, Hasmik; Nazaretyan, Khachik; **Aydinyan, Sofiya**; Tumanyan, Manvel; Kharatyan, Suren The International Conference Dedicated to the 50th Anniversary of Self-Propagating High Temperature Synthesis (SHS-50) : proceedings = Международная конференция CBC-50, приуроченная к 50-летию юбилею научного открытия Явление волновой локализации автотормозящихся твердофазных реакций... : сборник материалов 2017 / p. 35–36 : ill <http://www.ism.ac.ru/events/SHS-50/abstracts.pdf>

#### **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](#)

#### **A novel pathway of solution combustion synthesis of silicon carbide and SiC based composite whiskers**

Kirakosyan, Hasmik; Nazaretyan, Khachik; Amirkhanyan, Narine; Beglaryan, Hayk; **Aydinyan, Sofiya** Modern materials and manufacturing 2023 2024 / art. 040009 <https://doi.org/10.1063/5.0189204> [Conference proceedings at Scopus](#) [Article at Scopus](#)

#### **Novel synthesized and milled carbide-based composite powders for HVOF spray = Uudsed sünteesitud ja jahvatatud karbiidide baasil komposiitpulbrid kiirleekpihustuseks**

Sarjas, Heikki 2016 [https://www.ester.ee/record=b4569666\\*est](https://www.ester.ee/record=b4569666*est)

#### **Novel thermally sprayed corrosion and wear resistant coatings**

Kulu, Priit; Zimakov, Sergei; Goljandin, Dmitri; Peetsalu, Priidu Proceedings of the 3rd International Conference Industrial Engineering - New Challenges to SME : 25-27 April 2002, Tallinn, Estonia 2002 / p. 169-172 : ill

#### **Performance and failure of carbide composites in different wear conditions**

Klaasen, Heinrich; Roosaar, Tõnu; **Kübarsepp, Jakob**; Tšinjan, Aleksei International Powder Metallurgy Congress & Exhibition : EURO PM2009 : 12th October - 14th October 2009, Copenhagen, Denmark : proceedings. Vol.1 2009 / p. 317-322 : ill

#### **Performance of carbide composites for cyclic loading applications**

Klaasen, Heinrich; **Kübarsepp, Jakob** International journal of materials & product technology 2007 / 3/4, p. 399-424 : ill

#### **Performance of carbide composites in cyclic loading conditions**

Klaasen, Heinrich; **Kübarsepp, Jakob**; Roosaar, Tõnu; **Sergejev, Fjodor**; Talkop, Adolf International Powder Metallurgy Congress & Exhibition : EURO PM2008 : 29th September - 1st October 2008, Mannheim, Germany : proceedings. Vol.1 2008 / p. 237-242 : ill

#### **Performance of cemented carbides in cyclic loading conditions**

Klaasen, Heinrich; **Kübarsepp, Jakob**; **Sergejev, Fjodor**; Traksmaa, Rainer Materials science = Medžiagotyra 2006 / 2, p. 144-146 : ill

#### **Performance of cemented carbides in cyclic loading wear conditions**

**Kübarsepp, Jakob**; Klaasen, Heinrich; **Sergejev, Fjodor** Materials science forum 2007 / Progress in powder metallurgy, p. 1221-1224 : ill

#### **Performance of cemented carbides in cyclic loading wear conditions**

**Kübarsepp, Jakob**; Klaasen, Heinrich; **Sergejev, Fjodor** Progress in powder metallurgy. Part 2, Proceedings of the 2006 Powder Metallurgy World Congress & Exhibition (PM2006), Busan, Korea, September 24-28, 2006 2006 / p. 1221-1224 : ill

#### **Performance of cemented carbides in cyclic loading wear conditions**

**Kübarsepp, Jakob**; Klaasen, Heinrich; **Sergejev, Fjodor** Extended abstracts of 2006 Powder Metallurgy World Congress : Busan, Korea, September 24-28. 2 2006 / p. 887-888

#### **Plasma transferred ARC (PTA) hardfacing of recycled hardmetal reinforced nickel-matrix surface composites**

Zikin, Arkadi; Ilo, Sotirag; Kulu, Priit; Hussainova, Irina; Katsich, Christian; Badisch, Ewald Materials science = Medžiagotyra 2012 / p. 12-17 : ill <https://matsc.ktu.lt/index.php/MatSc/article/view/1334>

#### **Preparation of nanosize MO<sub>2</sub>C by combining solution combustion synthesis with subsequent F**

Nazaretyan, Khachik; Kirakosyan, Hasmik; **Aydinyan, Sofiya**; Kharatyan, Suren JTACC+V4 : 1st Journal of Thermal Analysis and Calorimetry Conference and 6th V4 (Joint Czech-Hungarian-Polish-Slovakian) Thermoanalytical Conference : June 6–9, 2017, Budapest, Hungary : Book of Abstracts 2017 / p. 58 <https://static.akcongress.com/downloads/jtacc/jtacc2017-book-of-abstracts.pdf>

#### **Processing route effects on NbC-Fe-Ni cermets: Improving mechanical properties via mechanical alloying**

Basit, Abdul; Ali, Sadaqat; Umer, Malik Adeel; **Anwar, Furqan** International journal of refractory metals and hard materials 2025 / art.

### **Production of metal–ceramic lattice structures by selective laser melting and carburizing or nitriding**

**Holovenko, Yaroslav; Kollo, Lauri; Jõelet, Marek; Ivanov, Roman; Soloviova, Tetiana; Veinthal, Renno** Proceedings of the Estonian Academy of Sciences 2019 / p. 131–139 : ill <https://doi.org/10.3176/proc.2019.2.02>  
[http://www.kirj.ee/public/proceedings\\_pdf/2019/issue\\_2/proc-2019-2-131-139.pdf](http://www.kirj.ee/public/proceedings_pdf/2019/issue_2/proc-2019-2-131-139.pdf) [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](#)

### **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 sintered chromium and titanium carbide-based cermets = Reaktsioonpaagutatud kroom- ja titaankarbiidsed kermised**

**Juhani, Kristjan** 2009 [https://www.ester.ee/record=b2498183\\*est](https://www.ester.ee/record=b2498183*est)

### **Reactive sintering of ZrC-TiC composites**

**Yung, Der-Liang; Kollo, Lauri; Hussainova, Irina; Zikin, Arkadi** Engineering materials and tribology 2013 / p. 20-25  
[https://www.researchgate.net/publication/234110368\\_Reactive\\_Sintering\\_of\\_ZrC-TiC\\_Composites](https://www.researchgate.net/publication/234110368_Reactive_Sintering_of_ZrC-TiC_Composites)

### **Selection of hardmetal containing hardfacings for different abrasive conditions**

**Kulu, Priit; Surženkov, Andrei; Simson, Taavi; Sarjas, Heikki** 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

### **Selective laser melting of TiC-Fe via laser pulse shaping : microstructure and mechanical properties**

**Maurya, Himanshu Singh; Kollo, Lauri; Tarraste, Marek; Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** 3D Printing and Additive Manufacturing 2023 / p. 640-649 <https://doi.org/10.1089/3dp.2021.0221> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Self-Propagating High-Temperature Synthesis of Silicon Carbide Using Reactions Thermokinetic Coupling Approach**

**Amirkhanyan, Narine; Kirakosyan, Hasmik; Zakaryan, Marieta; Zurnachyan, Alina; Aydinyan, Sofiya** EC-SILICONF2 : The 2nd European Conference on Silicon and Silica Based Materials, Hungary, October 4-8, 2021 2021 / p. 118

### **SEU study of wideband heterostructure diode for particle detection**

**Patankar, Udayan Sunil; Koel, Ants** 2021 IEEE International Conference on Consumer Electronics (ICCE) 2021 / 4 p. : ill  
<https://doi.org/10.1109/ICCE50685.2021.9427613> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Simulations of heterostructures based on 3C-4H and 6H-4H silicon carbide polytypes**

**Rashid, Muhammad Haroon; Koel, Ants; Rang, Toomas** Silicon carbide and related materials 2017 : ICSCRM 2017 : selected, peer reviewed papers from the 2017 International Conference on Silicon Carbide and related materials, September 17-22, 2017, Washington, DC, USA 2018 / p. 302-305 : ill <https://doi.org/10.4028/www.scientific.net/MSF.924.302> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

### **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 and erosion wear of cemented carbides**

**Kübarsepp, Jakob; Klaasen, Heinrich; Vainola, Vello** Engineerings Materials & Tribology 2004 : materials of the XIII-th International Baltic Conference : September 23-24, Riga, Latvia 2004 / p. 120-122 : ill

### **Solid phase's transformations in boron carbide based composites during heat treatment**

**Kommel, Lembit; Kimmari, Eduard** Solid state phenomena 2008 / p. 175-180

### **Solution based processing for nanocarbides**

**Umalas, Madis; Reedo, Valter; Lõhmus, A.; Hussainova, Irina** Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 753-758 : ill

### **Solution combustion synthesis of nanostructured molybdenum carbide**

Kirakosyan, Hasmik; Nazaretyan, K.T.; Mnatsakanyan, R.A.; **Aydinyan, Sofiya**; Kharatyan, Suren Journal of nanoparticle research 2018 / art. 214, 11 p. : ill <https://doi.org/10.1007/s11051-018-4312-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Structural-selective wearing model of cemented non-tungsten carbide composites**

**Valdma, Leo**; Talving, T.; **Kübarsepp, Jakob**; Kallas, Paul; **Annuka, Harri** Proceedings of Japan International Tribology Conference 1990 / p. 1-3

### **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](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](https://www.ester.ee/record=b1492085*est)

### **Synthesis of ZrC-TiC blend by novel combination of sol-gel method and carbothermal reduction**

Umalas, Madis; Reedo, Valter; Lõhmus, Ants; **Hussainova, Irina**; **Juhani, Kristjan** Engineering materials and tribology 2013 / p. 62-67 [https://www.researchgate.net/publication/265844548\\_Synthesis\\_of\\_ZrC-TiC\\_Blend\\_by\\_Novel\\_Combination\\_of\\_Sol-Gel\\_Method\\_and\\_Carbothermal\\_Reduction](https://www.researchgate.net/publication/265844548_Synthesis_of_ZrC-TiC_Blend_by_Novel_Combination_of_Sol-Gel_Method_and_Carbothermal_Reduction)

### **The aluminum based composite produced by Self propagating High temperature Synthesis**

**Pramono, Agus**; **Kommel, Lembit**; **Kollo, Lauri**; **Veinthal, Renno** Materials science = Medžiagotyra 2016 / p. 41-43 : ill <https://doi.org/10.5755/j01.ms.22.1.7500> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **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 formation of structure and change of properties during heat treatment of boron carbide composites**

**Kommel, Lembit**; **Veinthal, Renno**; **Kimmari, Eduard** Materials science = Medžiagotyra 2003 / 1, p. 99-101 : ill

### **The influence of binder phase status on the wear resistance of boron carbide cermet by friction**

**Kommel, Lembit**; **Kimmari, Eduard**; **Peetsalu, Priidu** Materials Engineering & Balttrib 2001 : materials of the X-th International Baltic Conference : September 27-28, Jurmala, Latvia 2001 / p. 202-206 : ill

### **The light weight boron carbide cermet as tribomaterial**

**Kommel, Lembit**; **Pirso, Jüri**; **Traksmäa, Rainer** 9th Nordic Symposium on Tribology NORDTRIB 2000 : Porvoo, Finland, 11-14 June 2000. Vol. 3 2000 / p. 886-895 : ill

### **The metal ceramic boron carbide light alloy produced by powder metallurgy**

**Kommel, Lembit**; **Traksmäa, Rainer** Proceedings of Joint Nordic Conference in Powder Technology 2000 / p. 37

### **Thermal shock resistance of chromium carbide-based cermets**

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

### **Thermopower measurements in 4H-SiC and Theoretical calculations considering the phonon drag effect**

Grivickas, V.; Stölzer, M.; **Velmre, Enn**; **Udal, Andres**; Grivickas, P.; Syväjärvi, M.; Yakimova, R.; Bikbajevs, V. Abstracts of the 3rd European Conference on Silicon Carbide and Related Materials : ECSCRM'2000 : Sept. 3-7, 2000, Kloster Banz, Germany 2000 / p. 144

### **Titanium and chromium carbide based cermets**

**Pirso, Jüri** 1996 [http://www.ester.ee/record=b1070455\\*est](http://www.ester.ee/record=b1070455*est)

### **Toughness and durability of cemented carbides**

**Klaasen, Heinrich**; **Kübarsepp, Jakob**; **Preis, Irina** Deformation and Fracture in Structural PM Materials : DF PM 2002 : proceedings of the international conference, Stara Lesna, Slovak Republic, September 15-18, 2002. Vol. 1 2002 / p. 77-83 : ill

### **Toughness characteristics of carbide composites**

**Klaasen, Heinrich**; **Kübarsepp, Jakob**; **Preis, Irina** Proceedings of the 3rd International Conference Industrial Engineering - New Challenges to SME : 25-27 April 2002, Tallinn, Estonia 2002 / p. 154-156 : ill

### **Toughness of carbide composites and their durability in application**

**Klaasen, Heinrich**; **Kübarsepp, Jakob**; **Preis, Irina** Euro PM 2002 : European Conference on Hard Materials and Diamond Tooling, Lausanne, Switzerland, October 7-9th 2002 : hard materials proceedings 2002 / p. 240-245 : ill

## **Toward high temperature tough ceramics**

**Hussainova, Irina**; Yung, Der-Liang; **Voltšihhin, Nikolai**; **Traksmaa, Rainer**; Hannula, Simo-Pekka ECCM15 - 15th European Conference on Composite Materials : Venice, Italy, 24-28 June 2012 / [8] p <http://www.escm.eu.org/eccm15/data/assets/178.pdf>

## **TTÜ teadlased arendavad kosmosetehnika jaoks vajalikke supekondensaatoreid [Võrguväljaanne]**

**Vähi, Kersti** novaator.err.ee 2020 / fot [TTÜ teadlased arendavad kosmosetehnika jaoks vajalikke supekondensaatoreid](#)

## **TTÜ teadlaste loodud uudse materjali vastu purunevad ka soomustlābistavad kuulid : [TTÜ materjalitehnika instituudi teadlaste töödest]**

Jaagant, Urmas Eesti Päevaleht 2014 / lk. 5 <https://epl.delfi.ee/artikkel/67597700/ttu-teadlaste-loodud-uudse-materjali-vastu-purunevad-ka-soomustlabistavad-kuulid>

## **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](#)

## **Ultrahigh pressure spark plasma sintering of ZrC-TiC-MoSi<sub>2</sub> and ZrC-TiC-Si<sub>3</sub>N<sub>4</sub> composites [Online resource]**

**Minasyan, Tatevik**; **Aydinyan, Sofiya**; **Liu, Le**; Cygan, Slawomir; **Hussainova, Irina** 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/>

## **Wear and friction in boron carbide cermet-steel sliding system**

**Kommel, Lembit**; **Hussainova, Irina**; Kimmari, Eduard Abstracts of papers from 2nd World Tribology Congress 2001 / p. 93

## **Wear and friction in boron carbide cermet-steel sliding system [Electronic resource]**

**Kommel, Lembit**; **Hussainova, Irina**; Kimmari, Eduard WTC 2001 : 2nd World Tribology Congress : Vienna, Austria, 03-07 September 2001 / [4] p.: ill. [CD-ROM]

## **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 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** Journal of materials research and technology 2025 / p. 7016-7025 <https://doi.org/10.1016/j.jmrt.2025.04.317>

## **Wear of advanced cemented carbides for metalforming tool materials**

**Klaasen, Heinrich**; **Kübarsepp, Jakob** Wear 2004 / p. 846-853 : ill <https://doi.org/10.1016/j.wear.2003.08.004>

## **Wear of potential tool materials for aluminium alloys friction stir welding at weld temperatures**

**Kolnes, Mart**; **Kübarsepp, Jakob**; **Sergejev, Fjodor**; **Kolnes, Märt** Proceedings of the Estonian Academy of Sciences 2019 / p. 198–206 : ill <https://doi.org/10.3176/proc.2019.2.12> [http://www.kirj.ee/public/proceedings\\_pdf/2019/issue\\_2/proc-2019-2-198-206.pdf](http://www.kirj.ee/public/proceedings_pdf/2019/issue_2/proc-2019-2-198-206.pdf) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **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 Cr<sub>3</sub>C<sub>2</sub>-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://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](#)

## **Wearing model of cemented carbide composites**

**Valdma, Leo**; **Kübarsepp, Jakob**; **Kallas, Paul**; **Annuka, Harri** Tallinna Tehnikaülikooli Toimetised 1991 / lk. 99-105: ill

## **Wear-resistance of non-tungsten cemented carbides**

**Pirso, Jüri**; **Kallas, Paul** Advances in hard materials production : proceedings of the 1996 European Conference on Advances in Hard Materials Production, Stockholm, Sweden, May 27-29, 1996 / p. 333-338: ill

**Абразивная износостойкость карбидосталей**

**Kübarsepp, Jakob; Annuka, Harri; Valdma, Leo** Тезисы докладов пятой республиканской конференции "Эрозионностойкие порошковые материалы и покрытия" 1988 / с. 23-24 [https://www.ester.ee/record=b1256812\\*est](https://www.ester.ee/record=b1256812*est)

**Безвольфрамовые порошковые твердые сплавы и карбидостали : тезисы докладов IV республиканской научно-технической конференции**

1985 [https://www.ester.ee/record=b1253975\\*est](https://www.ester.ee/record=b1253975*est)

**Безвольфрамовые порошковые твердые сплавы и карбидостали : тезисы докладов IV республиканской научно-технической конференции**

1985 [https://www.ester.ee/record=b1253990\\*est](https://www.ester.ee/record=b1253990*est)

**Безвольфрамовые твердые сплавы, их свойства и области применения**

Эйхманс Э.Ф.; Литвинюк Н.И. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 4-6

**Влияние режимов размола на дисперсность карбидохромовой смеси и ее активность при спекании**

**Pirso, Jüri; Valdma, Leo** Тезисы докладов всесоюзной научной конференции "Технология, свойства и применение износостойких спеченных материалов", 26-28 ноября 1974 г. 1974 / с. 11-12

**Влияние режимов размола на дисперсность смеси карбида хрома и никеля и ее активность при спекании**

**Pirso, Jüri; Valdma, Leo** Спеченные износостойкие материалы 1977 / с. 8-12 : илл [https://www.ester.ee/record=b2692826\\*est](https://www.ester.ee/record=b2692826*est)

**Влияние способа получения стали-связки на свойства карбидосталей**

Narva, Valentina; Loškarjova, I.; Taradajev, J.; **Kallas, Paul** Тезисы докладов пятой республиканской конференции "Эрозионностойкие порошковые материалы и покрытия" 1988 / с. 21-23 [https://www.ester.ee/record=b1256812\\*est](https://www.ester.ee/record=b1256812*est)

**Влияние технологических факторов и состава на свойства карбидохромовых спеченных твердых сплавов**

**Pirso, Jüri; Valdma, Leo** Порошковая металлургия : сборник статей. 2 1977 / с. 19-28 [https://www.ester.ee/record=b2111366\\*est](https://www.ester.ee/record=b2111366*est)  
<https://digikogu.taltech.ee/et/Item/70a3ad25-126c-4b5f-b887-e5dc1aa558b3>

**Влияния фосфора на свойства карбидохромовых спеченных сплавов**

**Valdma, Leo; Pirso, Jüri** Тезисы докладов I республиканской конференции по порошковой металлургии : эрозионностойкие спеченные материалы и их применение 1975 / с. 15-16 [https://www.ester.ee/record=b1314322\\*est](https://www.ester.ee/record=b1314322*est)

**Возникновение и развитие трещин в карбидохромовых спеченных сплавах при сжатии**

**Pirso, Jüri** Свойства и технология изготовления износостойких материалов 1982 / с. 21-29 : илл  
[https://www.ester.ee/record=b1309562\\*est](https://www.ester.ee/record=b1309562*est) <https://digikogu.taltech.ee/et/Item/da5bb058-212f-443b-9de3-5673fbd01534>

**Вопросы выбора состава карбидтитановых сплавов со связками на основе железа**

**Kübarsepp, Jakob** [Порошковая металлургия] : тезисы докладов XV всесоюзной научно-технической конференции : (19-22 нояб. 1985 г.) 1985 / с. 381-382 [https://www.ester.ee/record=b2336294\\*est](https://www.ester.ee/record=b2336294*est)

**Вопросы термостойкости карбидо-титановых спеченных твердых сплавов**

**Valdma, Leo; Kudrjartsev, Vladimir** Порошковая металлургия : сборник статей. 2 1977 / с. 11-17  
[https://www.ester.ee/record=b2111366\\*est](https://www.ester.ee/record=b2111366*est) <https://digikogu.taltech.ee/et/Item/70a3ad25-126c-4b5f-b887-e5dc1aa558b3>

**Гидроабразивное изнашивание спеченных твердых сплавов на основе карбидов титана и хрома : автореферат ... кандидата технических наук (05.02.04)**

**Kallas, Paul** 1978 [http://www.ester.ee/record=b1315626\\*est](http://www.ester.ee/record=b1315626*est)

**Износостойкие диффузионные карбидные покрытия из жидких насыщающих сред**

Борисов Ю.С.; Шавловский Е.Н.; Капорик Н.И.; Солдатов Б.Ф. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 48-50

**Износостойкие материалы системы карбонитрид титана - карбид кремния - нитрид алюминия**

Казаков В.К.; Дуб С.Н.; Любимов В.Д. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 22-23

**Износостойкость карбидосталей в абразивной струе**

**Kübarsepp, Jakob; Annuka, Harri; Valdma, Leo** Износостойкие спеченные материалы и покрытия 1988 / с. 8-18

**Износостойкость карбидохромовых спеченных сплавов в абразивной струе**

**Valdma, Leo; Pirso, Jüri** Тезисы докладов всесоюзной научной конференции "Технология, свойства и применение износостойких спеченных материалов", 26-28 ноября 1974 г. 1974 / с. 12-13

#### **Износостойкость порошковых карбидосталей**

**Annuka, Harri; Kübarsepp, Jakob; Valdma, Leo** Уральская региональная конференция по порошковой металлургии : тезисы докладов 1987 / с. 45

#### **Изучение процесса плазменного напыления карбидосталей на стальную основу**

Нарва В.К.; Лошкарева Н.С.; Отрадинский Ю.А.; Воронкина И.А. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 43-44

#### **Использование стружечных отходов титановых сплавов в производстве карбидосталей**

Levinskii, J.; **Kübarsepp, Jakob** Тезисы докладов пятой республиканской конференции "Эрозионностойкие порошковые материалы и покрытия" 1988 / с. 25-26 [https://www.ester.ee/record=b1256812\\*est](https://www.ester.ee/record=b1256812*est)

#### **Испытание наноиндентированием и моделирование композитов на основе карбида хрома**

**Hussainova, Irina**; Hamed, Elham; Jasiuk, Iwona Mechanics of composite materials 2010 / p. 1-18 : ill

#### **Исследование взаимосвязи гидроабразивного износа и коррозионной стойкости композиционных материалов на основе карбида бора**

Маринич М.А.; Кузенкова М.А.; Бевза Ю.В.; Беловол В.С. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 9-10

#### **Исследование влияния легирования на некоторые свойства керметов карбид титана-сталь**

**Kübarsepp, Jakob; Valdma, Leo** Направления развития инструментального производства в X пятилетке : сборник тезисов докладов научно-технического семинара 1978 / с. 160-161 [https://www.ester.ee/record=b1308562\\*est](https://www.ester.ee/record=b1308562*est)

#### **Исследование возможностей повышения эрозионной стойкости наплавленных покрытий типа ПГ-СР**

**Halling, Jaanus** Износостойкие спеченные материалы и покрытия 1988 / с. 62-68

#### **Исследование спекания карбидосталей различных составов**

Левинский Ю.В.; Петров А.П.; Мокина В.А. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 13-14

#### **Карбидостали как износостойкие конструкционные и инструментальные материалы**

**Kübarsepp, Jakob; Annuka, Harri; Valdma, Leo** Трение и износ в машинах. 15 1989 / с. 71-84

#### **Комплекс износостойкость - прочность порошковых карбидосталей**

**Valdma, Leo; Annuka, Harri; Kübarsepp, Jakob** Трение и износ = Friction and Wear : международный научный журнал 1987 / с. 368-373 : илл [https://www.ester.ee/record=b1312784\\*est](https://www.ester.ee/record=b1312784*est)

#### **Контактное взаимодействие карбида титана с некоторыми сплавами железа**

**Kübarsepp, Jakob; Dzökovitš, I.** Адгезия расплавов и пайка материалов : республиканский межведомственный сборник. Вып. 13 1984 / с. 66-70 : ил [https://www.ester.ee/record=b2012925\\*est](https://www.ester.ee/record=b2012925*est)

#### **Контактное взаимодействие карбида титана со сплавами на основе железа**

Panasjuk, A.; **Kübarsepp, Jakob; Dzökovitš, I.; Valdma, Leo** Порошковая металлургия = Powder metallurgy : ежемесячный научно-технический журнал 1981 / с. 66-72 [https://www.ester.ee/record=b1645489\\*est](https://www.ester.ee/record=b1645489*est)

#### **Легирование карбидохромового спеченного сплава**

**Arop, A.; Valdma, Leo; Pirso, Jüri** XX студенческая научно-техническая конференция вузов Прибалтийских республик, Белорусской ССР и Молдавской ССР : тезисы докладов. Часть 1 1974 / с. 181 [https://www.ester.ee/record=b1306141\\*est](https://www.ester.ee/record=b1306141*est)

#### **Материалы на основе высокодисперсных порошков карбонитридов титана и хрома**

Залите И.; Миллер Т.; Маслюк В.; Иванов И. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 27-29

#### **Некоторые зависимости между технологическими факторами свойствами карбидо-хромовых твердых сплавов**

**Valdma, Leo; Pirso, Jüri** Eigenschaften, Herstellung, Einsatz metallischer Sinter- und Verbundwerkstoffe : Abhandlungen der V. Internationalen Pulvermetallurgischen Tagung, Dresden, 23. bis 25. Oktober 1973 1973 / S. 29-1-29-14

#### **Некоторые закономерности изнашивания карбидосталей в условиях абразивной эрозии**

Rešetnjak, Heinrich; **Kübarsepp, Jakob; Sepp, A.; Annuka, Harri** Трение и износ = Friction and Wear : международный научный журнал 1989 / с. 525-529 : илл [https://www.ester.ee/record=b1312784\\*est](https://www.ester.ee/record=b1312784*est)

#### **Некоторые результаты горячего уплотнения спеченных сталей, легированных карбидосодержащими элементами**

**Päärsoo, Riho; Kulu, Priit** Трение и износ в машинах 1980 / с. 71-77 : илл [https://www.ester.ee/record=b2191013\\*est](https://www.ester.ee/record=b2191013*est)

<https://digikogu.taltech.ee/et/Item/ce30370b-afd1-4c7d-a563-4e4f7a1b178e>

#### **Некоторые результаты горячего уплотнения спеченных стале́й, упрочненных карбидами**

**Päärsoo, R.; Kulu, Priit** Направления развития инструментального производства в X пятилетке : сборник тезисов докладов научно-технического семинара 1978 / с. 167 [https://www.ester.ee/record=b1308562\\*est](https://www.ester.ee/record=b1308562*est)

#### **Некоторые свойства износостойких эмалевых покрытий, содержащих тугоплавкие карбиды**

**Arensburger, Daniil; Pirso, Jüri** Свойства и технология изготовления износостойких материалов 1980 / с. 3-9 : илл [https://www.ester.ee/record=b1276393\\*est](https://www.ester.ee/record=b1276393*est) <https://digikogu.taltech.ee/et/Item/be560987-a637-4f71-93da-1a9ee9705512>

#### **О механизме разрушения карбидохромовых спеченных твердых сплавов**

**Pirso, Jüri** Трение и износ в машинах 1980 / с. 63-70 : илл [https://www.ester.ee/record=b2191013\\*est](https://www.ester.ee/record=b2191013*est) <https://digikogu.taltech.ee/et/Item/ce30370b-afd1-4c7d-a563-4e4f7a1b178e>

#### **Окисление компонентов системы TiC-Fe-Cr при предварительном спекании порошковой карбидостали**

**Kübarsepp, Jakob** Порошковая металлургия = Powder metallurgy : ежемесячный научно-технический журнал 1988 / с. 43-47 : рис., таб [https://www.ester.ee/record=b1645489\\*est](https://www.ester.ee/record=b1645489*est)

#### **Окисление твердых сплавов на основе карбида титана, содержащих железо, хром и кремний**

Lavrenko, V.; Protsenko, T.; **Kübarsepp, Jakob; Valdma, Leo** Сверхтвердые материалы 1982 / с. 47-50

#### **Особенности размола порошковых смесей карбид титана-железо стальными шарами**

**Kübarsepp, Jakob; Arensburger, Daniil** Порошковая металлургия = Powder metallurgy : ежемесячный научно-технический журнал 1984 / с. 4-8 : рис., таб [https://www.ester.ee/record=b1645489\\*est](https://www.ester.ee/record=b1645489*est)

#### **Оценка некоторых свойств спеченных стале́й, упрочненных карбидами**

**Arensburger, Daniil; Valdma, Leo; Sokolov, A.** Тезисы докладов I республиканской конференции по порошковой металлургии : эрозионностойкие спеченные материалы и их применение 1975 / с. 32-33 [https://www.ester.ee/record=b1314322\\*est](https://www.ester.ee/record=b1314322*est)

#### **Показатели работоспособности карбидосталей**

**Kübarsepp, Jakob; Reshetnjak, Heinrich** Порошковая металлургия = Powder metallurgy : ежемесячный научно-технический журнал 1990 / 2, с. 48-53

#### **Применение математических методов при изучении влияния технологических факторов и состава на свойства твердого сплава на основе карбидов хрома**

**Pirso, Jüri; Valdma, Leo** Тезисы докладов II Всесоюзного семинара по металлокерамическим конструкционным материалам и изделиям 1972 / с. 39-40

#### **Проблемы легирования карбидтитановых твёрдых сплавов, цементированных сплавами на основе железа**

**Kübarsepp, Jakob; Valdma, Leo** Карбиды и материалы на их основе : [Сборник статей] 1983 / с. [?]

#### **Прочность и пластичность карбидосталей с железоникелевыми связками**

**Kübarsepp, Jakob; Reshetnjak, Heinrich; Annuka, Harri** Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 15-17

#### **Прочность при изгибе и ударная вязкость карбидосталей**

**Kübarsepp, Jakob; Annuka, Harri** Порошковая металлургия = Powder metallurgy : ежемесячный научно-технический журнал 1989 / с. 75-79 : илл [https://www.ester.ee/record=b1645489\\*est](https://www.ester.ee/record=b1645489*est)

#### **Прочность, вязкость и пластичность карбидосталей**

**Kübarsepp, Jakob; Annuka, Harri; Reshetnjak, Heinrich** Тезисы докладов пятой республиканской конференции "Эрозионностойкие порошковые материалы и покрытия" 1988 / с. 19-21 [https://www.ester.ee/record=b1256812\\*est](https://www.ester.ee/record=b1256812*est)

#### **Регенерация отходов твердых сплавов на основе карбида вольфрама методом газофазной окислительно-восстановительной переработки**

Кудрявцев В.А.; Козьяков В.А. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 26-27

#### **Рентгенографическое исследование керметов типа TiC-Ni-Mo**

**Pakkas, Raul; Kabral, H.** Труды по физике : сборник статей. 5 1970 / с. 29-37 : илл [https://www.ester.ee/record=b2189960\\*est](https://www.ester.ee/record=b2189960*est) <https://digikogu.taltech.ee/et/Item/772a4309-c50e-4ac0-a978-642c38d7bfd4>

#### **Селективный износ спеченных твердых сплавов в абразивной среде**

**Valdma, Leo** Свойства и технология изготовления износостойких материалов 1982 / с. 3-9 : илл [https://www.ester.ee/record=b1309562\\*est](https://www.ester.ee/record=b1309562*est) <https://digikogu.taltech.ee/et/Item/da5bb058-212f-443b-9de3-5673bfd01534>

#### **Термостойкость карбидохромовых спеченных сплавов**

**Pirso, Jüri; Valdma, Leo; Masing, Juhan** Износ, усталость и коррозия металлов : сборник статей. 7 1975 / с. 39-45 : илл  
[https://www.ester.ee/record=b2190702\\*est](https://www.ester.ee/record=b2190702*est) <https://digikogu.taltech.ee/et/Item/7b7b4d74-55e0-43cf-b22c-bd484ceb163f>

#### **Трещиностойкость и прочность карбидосталей**

**Kübarsepp, Jakob; Annuka, Harri**; Reshetnjak, Heinrich; Майстренко А.Л.; Чеповецкий Г.И. Порошковая металлургия = Powder metallurgy : ежемесячный научно-технический журнал 1990 / 1, с. 90-94: рис

#### **Формирование гетерогенных покрытий на основе ультрадисперсного карбида вольфрама**

Бондаренко В.П.; Гуслиенко Ю.А.; Павлоцкая Э.Г.; Мартынова Л.М. Износостойкие порошковые материалы и покрытия : тезисы докладов второй конференции Балтийских республик 1991 / с. 46