

Adhesive wear of WC- and TiC-based friction stir welding tool materials for aluminium alloy welding [Electronic resource]

Kolnes, Mart; Kübarsepp, Jakob; Sergejev, Fjodor; Kolnes, Märt European Powder Metallurgy Association : proceedings : 14 – 18 October 2018, Bilbao, Spain 2018 / 6 p. : ill. [USB] <https://www.epma.com/publications/euro-pm-proceedings/product/euro-pm2018-proceedings-usb>

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>

Aluminium - stainless steel hybrid composites obtained by selective laser melting and centrifugal casting [Online resource]

Holovenko, Yaroslav; Kollo, Lauri; Kolnes, Märt Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p. : ill <http://fntdk.ut.ee/teesid/>

Boron containing solid and superhard composites production techniques and properties [Electronic resource]

Kommel, Lembit; Kübarsepp, Jakob; Tarraste, Marek; Kolnes, Märt World PM2016 proceedings 2016 / [6] p. : ill. [USB]

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](#)

Cobalt- and nickel-free titanium and chromium carbide-based cermets = Koobalti- ja nikli-vabad titaankarbiid- ja kroomkarbiidkermised

Kolnes, Märt 2018 <https://digi.lib.ttu.ee/i/?9960> https://www.ester.ee/record=b5138030*est

Comparative study of adhesive wear for CoCr, TiC-NiMo, WC-Co as potential FSW tool materials

Kolnes, Mart; Kübarsepp, Jakob; Sergejev, Fjodor; Kolnes, Märt Materials Engineering 2017 : selected, peer reviewed papers from the 26th International Baltic Conference on Materials Engineering 2017, October 26-27, Kaunas, Lithuania 2017 / p. 224-228 : ill <https://doi.org/10.4028/www.scientific.net/SSP.267.224> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Effect of high chromium content additions in iron-bonded Ti(C,N) cermets: a hardness-toughness tradeoff

Pampori, Tabeen Halawat; Kolnes, Märt; Juhani, Kristjan; Tarraste, Marek; Kübarsepp, Jakob Proceedings of the Estonian Academy of Sciences 2025 / p. 170-174 : ill <https://doi.org/10.3176/proc.2025.2.16>

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 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]

Electrical and thermal anisotropy in additively manufactured AlSi10Mg and Fe-Si samples

Sarap, Martin; Tiismus, Hans; Kallaste, Ants; Saarna, Mart; Kolnes, Märt; Shams Ghahfarokhi, Payam; Vaimann, Toomas Machines 2025 / art. 1 <https://doi.org/10.3390/machines13010001>

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>

Exploring microstructural properties, phase transformations, and wettability in high-chromium content iron-bonded Ti(C,N)-based cermet

Pampori, Tabeen Halawat; Kolnes, Märt; Juhani, Kristjan; Tarraste, Marek; Maurya, Himanshu Singh; Kübarsepp, Jakob Journal of the Japan Society of Powder and Powder Metallurgy 2025 / p. S1533-S1540 <https://doi.org/10.2497/jjspm.16P-T14-06>

Fabrication and microstructural analysis of didymium-iron-boron magnet alloys with cerium additions

Mural, Zorjana; Kolnes, Märt; Afshari, Hossein; Kollo, Lauri; Link, Joosep; Veinthal, Renno Proceedings of the Estonian Academy of Sciences 2016 / p. 166-171 : ill <https://doi.org/10.3176/proc.2016.2.02> https://artiklid.elnet.ee/record=b2768229*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

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://doi.org/10.4028/www.scientific.net/KEM.799.136> Conference proceeding at Scopus Article at Scopus

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 Sciences 2021 / p. 533-539 : ill <https://doi.org/10.3176/proc.2021.4.22> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Kermiste mikrostruktuur

Kolnes, Märt; Tarraste, Marek Horisont 2017 / lk. 20-21 : ill http://www.ester.ee/record=b1072243*est https://artiklid.elnet.ee/record=b2819541*est

Metalsete materjalide keevisõmbuste purustav katsetamine : löökpaindekatsed. Katsekehade asukoht, soone asend ja uurimine = Destructive tests on welds in metallic materials : impact tests. Test specimen location, notch orientation and examination (ISO 9016:2022)

2024 https://www.ester.ee/record=b5678158*est

Metalsete materjalide keevisõmbuste purustav katsetamine : ristsuunalised tõmbekatsed = Destructive tests on welds in metallic materials : transverse tensile test (ISO 4136:2022)

2024 https://www.ester.ee/record=b5678037*est

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

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

Production of superhard carbon rich boron carbon (B_{11.72}C_{3.28}) based composite in the B₄C-Al-WC-Co-Cu system through SHS and SPS techniques [Electronic resource]

Kommel, Lembit; Tarraste, Marek; Kolnes, Märt; Veinthal, Renno; Kübarsepp, Jakob Euro PM2015 Congress & Exhibition : proceedings : 4-7 October 2015, Reims Congress Centre, Reims, France 2015 / [6] p. : ill. [USB]

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

Sintering parameters of TiC cermets with FeCr binder

Kolnes, Märt; Kübarsepp, Jakob TÜ ja TTÜ doktorikool "Funktsionaalsed materjalid ja tehnoloogiad" : 04.-05. märts 2014, Tartu 2014 / [1] p. : ill

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

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

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

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