

### **Abrasive wear resistance of HVOF sprayed and PTA-welded hardmetal hard phase reinforced metal-matrix based coatings**

**Tarbe, Riho; Kulu, Priit;** Zikin, Arkadi; **Surženkov, Andrei** Engineering materials & tribology XXII 2014 / p. 3-7

<https://doi.org/10.4028/www.scientific.net/KEM.604.3> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

### **Advanced machine learning and experimental studies of polypropylene based polyesters tribological composite systems for sustainable recycling automation and digitalization**

**Hussain, Abrar; Kübarsepp, Jakob; Sergejev, Fjodor; Goljandin, Dmitri; Hussainova, Irina; Podgurski, Vitali; Karjust, Kristo;** Maurya, Himanshu Singh; Rahmani Ahranjani, Ramin; Sinka, Maris International journal of lightweight materials and manufacture 2025 / p. 252-263 <https://doi.org/10.1016/j.ijlmm.2024.11.001>

### **Angularity evaluation of milled WC-Co powder**

**Kulu, Priit; Mikli, Valdek; Käerdi, Helmo;** Besterce, Michal International journal of materials & product technology 2005 / p. 289-298 : ill

### **Briquetting of municipal solid waste by different technologies in order to evaluate its quality and properties**

Križan, Peter; Matuš, M.; Šooš, Lubomir; **Kers, Jaan; Peetsalu, Priidu; Kask, Ülo;** Menind, Andres Agronomy research 2011 / p. 115-123 : ill

### **Characterization of disintegrator milled hardmetal powder**

**Kulu, Priit; Mikli, Valdek; Käerdi, Helmo;** Besterce, Michal Powder metallurgy progress 2003 / p. 39-48 : ill

### **A comparison of waste education in schools and colleges across five European cities**

Lee, Sheryl A.; Mork, Jane; Voca, Neven; **Voronova, Viktoria** International Journal of Sustainable Development & World Ecology 2022 / p. 338-348 <https://doi.org/10.1080/13504509.2021.2019138> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Composite powders for thermal spray**

**Kulu, Priit; Zimakov, Sergei; Arensbürger, Daniil** Medžiagotyra = Materials science 1999 / p. 22-26 : ill

### **Determination of paper plaster hygrothermal performance: influence of different types of paper on sorption and moisture buffering**

**Vares, Maia-Liisa; Ruus, Aime; Nutt, Nele; Kubjas, Ardo; Raamets, Jane** Journal of building engineering 2021 / art. 101830, 8 p. : ill <https://doi.org/10.1016/j.jobe.2020.101830> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Determination of physical, mechanical and burning characteristics of polymeric waste material briquettes**

**Kers, Jaan; Kulu, Priit; Aruniit, Aare; Laurmaa, Viktor;** Križan, Peter; Šooš, Lubomir; **Kask, Ülo** Estonian journal of engineering 2010 / p. 307-316 : ill

### **An economic and sustainable approach to transform aluminosilicate-rich solid waste to functionally graded composite foam for high-temperature applications**

Pandey, Vaibhav; **Yadav, Mayank Kumar;** Panda, Saroja Kanta; Singh, Vinay Kumar Chemosphere 2023 / art. 139588, 12 p. : ill <https://doi.org/10.1016/j.chemosphere.2023.139588> [Journal metrics at Scopus](#) [Article at Scopus](#)

### **Economic aspects of mechanical pre-treatment's role in precious metals recovery from electronic waste**

Blumbergs, Ervins; Shishkin, Andrei; Markus, Karlis; Serga, Vera; **Goljandin, Dmitri; Klauson, Artur;** Abramovskis, Vitalijs; Baroninš, Janis; Zarkov, Aleksej; Pankratov, Vladimir Metals 2024 / art. 95 <https://doi.org/10.3390/met14010095> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Economical aspects of the mechanical pre-treatment role in the precious metals recovery from electronic waste**

Blumbergs, Ervins; Shishkin, Andrei; Markus, Karlis; Serga, Vera; **Goljandin, Dmitri; Klauson, Artur;** Abramovskis, Vitalijs; Baroninš, Janis; Zarkov, Aleksej; Pankratov, Vladimir Preprints.org 2023 / 19 p <https://doi.org/10.20944/preprints202312.2345.v1>

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

Katinas, Egidijus; **Antonov, Maksim;** Jankauskas, Vytenis; **Goljandin, Dmitri** Coatings 2023 / art. 734

<https://doi.org/10.3390/coatings13040734> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Evaluating the potential of Estonia as European REE recycling capital via an environmental social governance risks assessment model**

**Paat, Andrus; Veetil, Sanoop Kumar Puthiya; Karu, Veiko; Hitch, Michael William** The Extractive industries and society 2021 / art. 100767, 8 p <https://doi.org/10.1016/j.exis.2020.07.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

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

**Heat conductive plates from recycled niobium slag**

**Kulu, Priit; Goljandin, Dmitri; Viljus, Mart; Traksmaa, 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](#)

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

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

**Investigation of Devulcanised Crumb Rubber Milling and Deagglomeration in Disintegrator System**

**Lapkovskis, Vjaceslavs; Mironovs, Viktors; Irtiseva, Kristine; Goljandin, Dmitri; Shishkin, Andrei** Key engineering materials 2019 / p. 216-220 <https://doi.org/10.4028/www.scientific.net/KEM.800.216> [Conference proceeding at Scopus](#) [Article at Scopus](#)

**Metal-matrix hardmetal/cermet reinforced composite powders for thermal spray**

**Goljandin, Dmitri; Sarjas, Heikki; Kulu, Priit; Käerdi, Helmo; Mikli, Valdek** Materials science = Medžiagotyra 2012 / p. 84-89 : ill [https://www.researchgate.net/publication/267243513\\_Metal-Matrix\\_HardmetalCermet\\_Reinforced\\_Composite\\_Powders\\_for\\_Thermal\\_Spray](https://www.researchgate.net/publication/267243513_Metal-Matrix_HardmetalCermet_Reinforced_Composite_Powders_for_Thermal_Spray)

**Particulate filled composite plastic materials from recycled glass fibre reinforced plastics**

**Aruniit, Aare; Kers, Jaan; Goljandin, Dmitri; Saarna, Mart; Tall, Kaspar; Majak, Jüri; Herranen, Henrik** Materials science = Medžiagotyra 2011 / p. 276-281 : ill

**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](#)

**Recycled hardmetal-based powder composite coatings : optimisation of composition, structure and properties**

**Kulu, Priit; Käerdi, Helmo; Surženkov, Andrei; Tarbe, Riho; Veinthal, Renno; Goljandin, Dmitri; Zikin, Arkadi** International journal of materials & product technology 2014 / p. 180-202 : ill <https://doi.org/10.1504/IJMPT.2014.064038> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Recycling bitumen for composite material production : Potential applications in the construction sector**

**Rikmann, Ergo; Mäeorg, Uno; Vaino, Neeme; Pallav, Vello; Järvik, Oliver; Liiv, Jüri** Applied Sciences (Switzerland) 2025 / art. 1313 <https://doi.org/10.3390/app15031313>

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

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

**Re-use and recycling of different electrical machines**

**Rassõlkin, Anton; Kallaste, Ants; Orlova, Svetlana; Gevorkov, Levon; Vaimann, Toomas; Belahcen, Anouar** Latvian journal of physics and technical sciences 2018 / p. 13-23 : ill <https://doi.org/10.2478/lpts-2018-0025> [Journal metrics at Scopus](#) [Article at Scopus](#)

**Role of experimental damage mechanics for the circular economy implementation in cotton industries**

**Hussein, Abrar; Abbas, Muhammad Mujtaba** Journal of Modern Nanotechnology 2021 / 9 p <https://doi.org/10.53964/jmn.2021004>

**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](#)

**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](#)

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

**Antonov, Maksim; Ivanov, Roman; Holovenko, Yaroslav; Goljandin, Dmitri; Rahmani Ahranjani, Ramin; Kollo, Lauri;**

**Hussainova, Irina** Cermets : aggregated book 2023 / p. 83–90 <https://doi.org/10.4028/b-j9Oly>

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

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

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

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

**Using chalk instead of paints in paper plaster**

**Nutt, Nele; Nei, Lembit; Olle, Margit** Latvian journal of physics and technical sciences 2025 / p. 80-86 <https://doi.org/10.2478/lpts-2025-0031>

**Wear resistance of thermal sprayed coatings on the base of recycled hardmetal**

**Kulu, Priit; Zimakov, Sergei** Surface and coatings technology 2000 / p. 46-51 : ill

**Wear resistant powder coatings on the base of recycled hardmetal**

**Tarbe, Riho; Zimakov, Sergei; Mikli, Valdek; Kulu, Priit; Veinthal, Renno** Powder metallurgy progress 2005 / p. 148-157 : ill

**Wear resistant thermal sprayed composite coatings based on iron self-fluxing alloy and recycled cermet powders**

**Sarjas, Heikki; Goljandin, Dmitri; Kulu, Priit; Mikli, Valdek; Surženkov, Andrei;** Vuoristo, Petri Materials science = Medžiagotyra 2012 / p. 34-39 : ill <https://matsc.ktu.lt/index.php/MatSc/article/view/1338>