

Additive manufacturing of TiC-based cermets : a detailed comparison with spark plasma sintered samples

Maurya, Himanshu Singh; Jayaraj, Jayamani; Vikram, Raja Jothi; **Juhani, Kristjan; Sergejev, Fjodor; Prashanth, Konda Gokuldoss** Journal of alloys and compounds 2023 / art. 170436 <https://doi.org/10.1016/j.jallcom.2023.170436> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Aluminum matrix composites reinforced with metallic glass particles with core-shell structure

Guana, H.D.; Lia, C.J.; Gaoa, P.; **Prashanth, Konda Gokuldoss** Materials science and engineering : A 2020 / art. 138630, 5 p. : ill <https://doi.org/10.1016/j.msea.2019.138630> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparison of mechanical and antibacterial properties of TiO₂/Ag ceramics and Ti6Al4V-TiO₂/Ag composite materials using combined SLM-SPS techniques

Rahmani Ahranjani, Ramin; Rosenberg, Merilin; Ivask, Angela; Kollo, Lauri Metals 2019 / art. 874, 13 p. : ill <https://doi.org/10.3390/met9080874> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Densification and characterization of spark plasma sintered ZrC–ZrO₂ 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 Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of Grain Size Distribution on Frictional Wear and Corrosion Properties of (FeCoNi)₈₆Al₇Ti₇ High-Entropy Alloys

Sun, Qinhui; Ma, Pan; Yang, Hong; Xie, Kaiqiang; Wan, Shiguang; Sheng, Chunqi; Chen, Zhibo; Yang, Hongji; Jia, Yandong; **Prashanth, Konda Gokuldoss** Entropy 2025 / art. 747 <https://doi.org/10.3390/e27070747>

Effect of HBN on wear of AlCrN-coated spark plasma - sintered TiB₂/Ti composites at temperatures up to 900°C

Luszcz, Maciej; Michalczewski, Remigiusz; Kalbarczyk, Marek; Osuch-Słomka, Edyta; Molenda, Jarosław; **Liu, Le; Antonov, Maksim; Hussainova, Irina** Quarterly tribologia 2022 / p. 43-55 <https://doi.org/10.5604/01.3001.0015.8756>

Effect of TiB₂ addition on the mechanical and biological response of spark plasma sintered Ti6Al7Nb matrix composites

Singh, Neera; Ummethala, Raghunandan; Surreddi, Kumar Babu; Jayaraj, Jayamani; **Sokkalingam, Rathinavelu;** Rajput, Monika; Chatterjee, Kaushik; **Prashanth, Konda Gokuldoss** Journal of alloys and compounds 2022 / art. 166502 <https://doi.org/10.1016/j.jallcom.2022.166502> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fabrication of localized diamond-filled copper structures via selective laser melting and spark plasma sintering

Rahmani Ahranjani, Ramin; Karimi, Javad; Kamboj, Nikhil; Kumar, Rahul, 1993-; Brojan, Miha; Tchorz, Adam; Skrabalak, Grzegorz; Lopes, Sergio Ivan Diamond and related materials 2023 / art. 109916 <https://doi.org/10.1016/j.diamond.2023.109916> [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>

High strength Ti-6Al-4V alloy fabricated by high-energy cube milling using calcium as process control agent (PCA) and spark plasma sintering

Babu, N. Kishore; **Kallip, Kaspar;** Leparoux, Marc; AlOgab, Khaled A.; Talari, Mahesh Kumar; Alqathani, N. M. The international journal of advanced manufacturing technology 2017 / p. 445-453 : ill <https://doi.org/10.1007/s00170-017-9994-9>

High virucidal potential of novel ceramic-metal composites fabricated via hybrid selective laser melting and spark plasma sintering routes

Rahmani Ahranjani, Ramin; Molan, Katja; Brojan, Miha; **Prashanth, Konda Gokuldoss;** Stopar, David The international journal of advanced manufacturing technology 2022 / p. 975-988 : ill <https://doi.org/10.1007/s00170-022-08878-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-temperature wear performance of hBN-added Ni-W composites produced from combustion-synthesized powders

Kumar, Rahul, 1993-; Aydinyan, Sofiya; Ivanov, Roman; Liu, Le; Antonov, Maksim; Hussainova, Irina Materials 2022 / art. 1252 <https://doi.org/10.3390/ma15031252> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hybrid graphene/alumina nanofibers for electroconductive zirconia

Drozdova, Maria; Perez-Coll, Domingo; **Aghayan, Marina; Ivanov, Roman;** Rodriguez, Miguel Angel; **Hussainova, Irina** Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 15-20 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.15> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Hybrid metal-ceramic biomaterials fabricated through powder bed fusion and powder metallurgy for improved impact resistance of craniofacial implants

Rahmani Ahranjani, Ramin; Kamboj, Nikhil Kumar; Brojan, Miha; **Antonov, Maksim; Prashanth, Konda Gokuldoss** Materialia

Influence of microstructure and strengthening mechanism of AlMg5-Al₂O₃ nanocomposites prepared via spark plasma sintering

Babu, N. Kishore; **Kallip, Kaspar**; Leparoux, Marc Materials & design 2016 / p. 534-544 : ill <http://dx.doi.org/10.1016/j.matdes.2016.01.138>

Low temperature, spark plasma sintering behavior of zirconia added by a novel type of alumina nanofibers

Voltšihhin, Nikolai; Rodriguez, Miguel Angel; **Hussainova, Irina**; **Aghayan, Marina** Ceramics international 2014 / p. 7235-7244 : ill <https://doi.org/10.1016/j.ceramint.2013.12.063> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Mechanical behavior of Ti6Al4V scaffolds filled with CaSiO₃ for implant applications

Rahmani Ahranjani, Ramin; **Antonov, Maksim**; **Kollo, Lauri**; **Holovenko, Yaroslav**; **Prashanth, Konda Gokuldoss** Applied sciences 2019 / art. 3844, 11 p. : ill <https://doi.org/10.3390/app9183844> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Mechanical properties and microstructural evolution of Ti-25Nb-6Zr alloy fabricated by spark plasma sintering at different temperatures

Zhu, Qing; Chen, Peng; Xiao, Qiushuo; Li, Fengxian; Yi, Jianhong; **Prashanth, Konda Gokuldoss**; Eckert, Jürgen Metals 2022 / art. 1824 <https://doi.org/10.3390/met12111824> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Modelling of impact-abrasive wear of ceramic, metallic, and composite materials

Rahmani Ahranjani, Ramin; **Antonov, Maksim**; **Kamboj, Nikhil Kumar** Proceedings of the Estonian Academy of Sciences 2019 / p. 191–197 : ill <https://doi.org/10.3176/proc.2019.2.11> http://www.kirj.ee/public/proceedings_pdf/2019/issue_2/proc-2019-2-191-197.pdf Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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

Oxidation of spark plasma sintered ZrC-Mo and ZrC-TiC composites

Yung, Der-Liang; **Maaten, Birgit**; **Antonov, Maksim**; **Hussainova, Irina** International journal of refractory metals and hard materials 2017 / p. 244-251 : ill <https://doi.org/10.1016/j.jirmhm.2017.03.019> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Processing and properties of zirconia toughened WC-based cermets

Hussainova, Irina; **Voltšihhin, Nikolai**; Cura, M. Erkin; Hannula, Simo-Pekka Advanced processing and manufacturing technologies for structural and multifunctional materials VII : a collection of papers presented at the 37th International Conference on Advanced Ceramics and Composites, January 27-February 1, 2013, Daytona Beach, Florida 2014 / p. 97-103 <https://ceramics.onlinelibrary.wiley.com/doi/abs/10.1002/9781118807965.ch11> Conference proceedings at Scopus Article at Scopus

Processing of ZrC-TiC composites by SPS

Yung, Der-Liang; **Hussainova, Irina**; Rodriguez, Miguel Angel; **Traksmaa, Rainer** Engineering materials and tribology : selected, peer reviewed papers from the 24th International Baltic Conference on Engineering Materials & Tribology (BALTMATRIB & IFHTSE 2015), November 5-6, 2015, Tallinn, Estonia 2016 / p. 94-99 : ill <https://doi.org/10.4028/www.scientific.net/KEM.674.94> Conference Proceedings at Scopus Article at Scopus

Selective laser melting and spark plasma sintering: a perspective on functional biomaterials

Rahmani Ahranjani, Ramin; Lopes, Sergio Ivan; **Prashanth, Konda Gokuldoss** Journal of functional biomaterials 2023 / art. 521, 33 p. : ill <https://doi.org/10.3390/jfb14100521> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Sintering routes for zirconia doped hardmetals

Voltšihhin, Nikolai; Cura, M. Erkin; **Hussainova, Irina**; Hannula, Simo-Pekka Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 765-770 : ill

Solution combustion synthesis of MnFeCoNiCu and (MnFeCoNiCu)₃O₄ high entropy materials and sintering thereof

Aydinyan, Sofiya; Kirakosyan, Hasmik; Sargsyan, Armen; **Volobujeva, Olga**; Kharatyan, Suren Ceramics International 2022 / p. 20294-20305 : ill <https://doi.org/10.1016/j.ceramint.2022.03.310> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Spark plasma sintered ZrC-Mo cermets : influence of temperature and compaction pressure

Yung, Der-Liang; **Antonov, Maksim**; **Hussainova, Irina** Ceramics international 2016 / p. 12907-12913 : ill <https://doi.org/10.1016/j.ceramint.2016.05.059> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Spark plasma sintering of layered γ -Al₂O₃/graphene reinforced nanocomposites

Saffarshamshirgar, Ali; Ivanov, Roman; Hussainova, Irina Proceedings of the Estonian Academy of Sciences 2019 / p. 140–144 : ill <https://doi.org/10.3176/proc.2019.2.04> http://www.kirj.ee/public/proceedings_pdf/2019/issue_2/proc-2019-2-140-144.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ZrC-TiC-MoSi₂ ceramic composite by spark plasma sintering

Hussainova, Irina; Minasyan, Tatevik; Liu, Le; Aydinyan, Sofiya Journal of Physics: Conference Series 2020 / art. 012028 <https://doi.org/10.1088/1742-6596/1527/1/012028> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [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](#)

The effect of spark plasma sintering thermal cycle on behaviour of Fe-based hardfacings reinforced with WC and WC-based hardmetal

Katinas, Egidijus; Antonov, Maksim; Jankauskas, Vytenis; Tarraste, Marek 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. [3]-8 : ill https://www.eester.ee/record=b5235278*est <https://www.scientific.net/KEM.799.3> <https://doi.org/10.4028/www.scientific.net/KEM.799.3> [Conference proceeding at Scopus](#) [Article at Scopus](#)

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](#)

Tungsten matrix composite reinforced with CoCrFeMnNi high-entropy alloy : impact of processing routes on microstructure and mechanical properties

Satyanarayana, P. V.; Sokkalingam, Rathinavelu; Jena, P. K.; Sivaprasad, Katakam; Prashanth, Konda Gokuldoss Metals 2019 / art. 992, 12 p. : ill <https://doi.org/10.3390/met9090992> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ultra high-pressure spark plasma sintered ZrC-Mo and ZrC-TiC composites

Yung, Der-Liang; Cygan, Slawomir; **Antonov, Maksim;** Jaworska, Lucyna; **Hussainova, Irina** International journal of refractory metals and hard materials 2016 / p. 201-206 : ill <https://doi.org/10.1016/j.ijrmhm.2016.09.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Vibration-assisted sputter coating of cenospheres : a new approach for realizing Cu-based metal matrix syntactic foams

Shishkin, Andrei; Drozdova, Maria; Kozlov, Viktor; **Hussainova, Irina;** Lehmhus, Dirk Metals 2017 / art. 16, p. 1-10 : ill <https://doi.org/10.3390/met7010016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

YSZ-rGO composite ceramics by spark plasma sintering : the relation between thermal evolution of conductivity, microstructure and phase stability

Glukharev, Artem; Glumov, Oleg; Temnikova, Maria; Saffarshamshirgar, Ali; Hussainova, Irina; Konakov, Vladimir Electrochimica acta 2021 / art. 137533 <https://doi.org/10.1016/j.electacta.2020.137533> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)