

#### **Acoustic performance of an additive manufactured lattice structure**

**Auriemma, Fabio; Liu, Le** IOP conference series : materials science and engineering 2021 / art. 012002, 5 p.: ill  
<https://doi.org/10.1088/1757-899X/1140/1/012002>

#### **Additively manufactured mesostructured MoSi<sub>2</sub>-Si<sub>3</sub>N<sub>4</sub> ceramic lattice**

**Minasyan, Tatevik; Liu, Le; Holovenko, Yaroslav; Aydinyan, Sofiya; Hussainova, Irina** Ceramics international 2019 / p. 9926-9933 <https://doi.org/10.1016/j.ceramint.2019.02.035> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Adhesion of AlCrN coating deposited on TiB<sub>2</sub>/Ti composites sintered by SPS dedicated for high temperature tribological applications**

Michalczewski, Remigiusz; Kalbarczyk, M.; Slomka, Z.; **Hussainova, Irina; Liu, Le; Antonov, Maksim** IOP conference series : materials science and engineering 2021 / art. 012010, 9 p <https://doi.org/10.1088/1757-899X/1140/1/012010>

#### **Bio-inspired TiB<sub>2</sub>-TiB-TiN lattices by selective laser melting**

**Liu, Le; Minasyan, Tatevik; Kamboj, Nikhil; Aydinyan, Sofiya; Hussainova, Irina** Materials Letters 2020 / art. 128337  
<https://doi.org/10.1016/j.matlet.2020.128337> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Combustion synthesis of MoSi<sub>2</sub> based composite and selective laser sintering thereof**

**Minasyan, Tatevik; Aghayan, Marina; Liu, Le; Aydinyan, Sofiya; Kollo, Lauri; Hussainova, Irina; Rodriguez, Miguel Angel** Journal of the European Ceramic Society 2018 / p. 3814-3821 : ill <https://doi.org/10.1016/j.jeurceramsoc.2018.04.043> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Effect of HBN on wear of AlCrN-coated spark plasma - sintered TiB<sub>2</sub>/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 solid lubricants on wear of PVD-coated spark plasma-sintered TiB<sub>2</sub>/Ti composites**

Luszcz, Maciej; Michalczewski, Remigiusz; Kalbarczyk, Marek; Osuch-Słomka, Edyta; **Liu, Le; Antonov, Maksim; Hussainova, Irina** Modern materials and manufacturing 2023 2024 / art. 040010 <https://doi.org/10.1063/5.0190460> [Conference proceedings at Scopus](#) [Article at Scopus](#)

#### **Functionally gradient Ti<sub>6</sub>Al<sub>4</sub>V-TiB composite produced by spark plasma sintering**

**Liu, Le; Ivanov, Roman; Kumar, Rahul, 1993-; Minasyan, Tatevik; Antonov, Maksim; Hussainova, Irina** IOP conference series : materials science and engineering 2021 / art. 012004, 6 p.: ill <https://doi.org/10.1088/1757-899X/1140/1/012004>

#### **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](#)

#### **Hot sliding wear of 88 wt.% TiB-Ti composites from SHS produced powders**

**Kumar, Rahul, 1993-; Liu, Le; Antonov, Maksim; Ivanov, Roman; Hussainova, Irina** Materials 2021 / art. 1242, 14 p.: ill  
<https://doi.org/10.3390/ma14051242> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Isothermal oxidation of SLM fabricated Mo(Si<sub>1-x</sub>Al<sub>x</sub>)<sub>2</sub>-based composite**

**Minasyan, Tatevik; Liu, Le; Toyserkani, Ehsan; Hussainova, Irina** IOP conference series : materials science and engineering 2021 / art. 012003, 8 p.: ill <https://doi.org/10.1088/1757-899X/1140/1/012003>

#### **Lattice of MoSi<sub>2</sub>/Si<sub>3</sub>N<sub>4</sub> by selective laser melting**

**Minasyan, Tatevik; Liu, Le; Aydinyan, Sofiya; Kollo, Lauri; Aghayan, Marina; Hussainova, Irina** European Powder Metallurgy Association : proceedings : 14 – 18 October 2018, Bilbao, Spain 2018 / art. 3993050 [USB] <https://www.epma.com/publications/euro-pm-proceedings/product/euro-pm2018-proceedings-usb>

#### **Mesoporous fibrous silicon nitride by catalytic nitridation of silicon**

**Minasyan, Tatevik; Liu, Le; Aghayan, Marina; Rodriguez, Miguel Angel; Aydinyan, Sofiya; Hussainova, Irina** Progress in natural science: materials international 2019 / p. 190-197 : ill <https://doi.org/10.1016/j.pnsc.2019.03.017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Mesoporous fibrous silicon nitride by catalytic nitridation of silicon and selective laser melting**

**Minasyan, Tatevik; Liu, Le; Aydinyan, Sofiya; Hussainova, Irina** XVI Conference and Exhibition Of The European Ceramic Society : abstract book 2019 / p. 80

#### **Microwave synthesis of B<sub>4</sub>C nanopowder for subsequent spark plasma sintering**

Davtyan, D.; Mnatsakanyan, R.A.; **Liu, Le; Aydinyan, Sofiya; Hussainova, Irina** Journal of materials research and technology 2019 / p. 5823-5832 : ill <https://doi.org/10.1016/j.jmrt.2019.09.052> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Mo(Si<sub>1-x</sub>Al<sub>x</sub>)<sub>2</sub>-based composite by reactive laser powder-bed fusion**

**Minasyan, Tatevik; Aydinyan, Sofiya; Liu, Le; Volobujeva, Olga; Toyserkani, Ehsan; Hussainova, Irina** Materials letters 2020 / art. 128776, 5 p. : ill <https://doi.org/10.1016/j.matlet.2020.128776> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **MoSi<sub>2</sub> based composites by selective laser melting**

**Minasyan, Tatevik; Liu, Le; Aydinyan, Sofiya; Hussainova, Irina** APICAM2019 program : [abstracts] 2019 / p. [218] <https://www.apicam2019.com.au/LiteratureRetrieve.aspx?ID=200067>

#### **MoSi<sub>2</sub> based composites preparation by combustion synthesis with subsequent selective laser sintering [Online resource]**

**Minasyan, Tatevik; Rodriguez, Miguel Angel; Liu, Le; Aghayan, Marina; Kollo, Lauri; Hussainova, Irina** Abstracts : 14th International Ceramics Congress 2018 / CB-10.2:L07 [http://2018.cimtec-congress.org/abstracts\\_focused\\_session\\_cb-10](http://2018.cimtec-congress.org/abstracts_focused_session_cb-10)

#### **Multi-type dislocation substructure evolution in a high-strength and ductile duplex high-entropy nanocomposites**

**Mua, Yongkun; Liu, Le; Shia, Jinqiang; Sun, Tongtong; Hua, Kai; Jia, Yuefei; Song, Kaikai; Jia, Yandong; Wang, Qing; Wang, Gang** Composites Part B : Engineering 2022 / art. 110322 <https://doi.org/10.1016/j.compositesb.2022.110322> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **Novel approach for the preparation of shapes from TiB<sub>2</sub>-Si<sub>3</sub>N<sub>4</sub> composite by selective laser melting**

**Liu, Le; Minasyan, Tatevik; Aydinyan, Sofiya; Hussainova, Irina** Proceedings of the Euro PM 2018 Congress : Bilbao, Spain. 14–18 October 2018 2018 <https://www.epma.com/publications/euro-pm-proceedings/product/euro-pm2018-am-special-materials>

#### **Novel approach for the synthesis and sintering of TiB<sub>2</sub>-Si<sub>3</sub>N<sub>4</sub> ceramic composite**

**Liu, Le; Minasyan, Tatevik; Aydinyan, Sofiya; Hussainova, Irina** European Powder Metallurgy Association : proceedings : 14 – 18 October 2018, Bilbao, Spain 2018 / art. 3987173 [USB] <https://www.epma.com/publications/euro-pm-proceedings/product/euro-pm2018-proceedings-usb>

#### **A novel approach to fabricate Si<sub>3</sub>N<sub>4</sub> by selective laser melting**

**Minasyan, Tatevik; Liu, Le; Aghayan, Marina; Kollo, Lauri; Kamboj, Nikhil Kumar; Aydinyan, Sofiya; Hussainova, Irina** Ceramics international 2018 / p. 13689-13694 : ill <https://doi.org/10.1016/j.ceramint.2018.04.208> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **A novel route for the preparation of TiB<sub>2</sub>/TiN composites by selective laser sintering [Online resource]**

**Liu, Le; Minasyan, Tatevik; Aydinyan, Sofiya; 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/>

#### **Selective laser melting for manufacturing of MoSi<sub>2</sub>/Si<sub>3</sub>N<sub>4</sub> composites**

**Minasyan, Tatevik; Rodriguez, Miguel Angel; Liu, Le; Aghayan, Marina; Kollo, Lauri; Hussainova, Irina** ECerS 2017 : 15th Conference & Exhibition of the European Ceramic Society, July 9–13, 2017, Budapest, Hungary : Book of abstracts 2017 / p. 77-78 <https://static.akcongress.com/downloads/ecers/ecers2017-abstract-book.pdf>

#### **Selective laser melting of ceramic composites**

**Aydinyan, Sofiya; Liu, Le; Minasyan, Tatevik; Hussainova, Irina** XVI Conference and Exhibition Of The European Ceramic Society : abstract book 2019 / p. 22

#### **Selective laser melting of Ti/cBN composite**

**Minasyan, Tatevik; Liu, Le; Aydinyan, Sofiya; Antonov, Maksim; 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. 257-262 : ill <https://www.scientific.net/KEM.799.257> [https://www.ester.ee/record=b5235278\\*est](https://www.ester.ee/record=b5235278*est) <https://doi.org/10.4028/www.scientific.net/KEM.799.257> Conference proceeding at Scopus Article at Scopus

#### **Selective laser melting of TiB<sub>2</sub>-Ti composite with high content of ceramic phase**

**Liu, Le; Minasyan, Tatevik; Ivanov, Roman; Aydinyan, Sofiya; Hussainova, Irina** Ceramics international 2020 / p. 21128-21135 <https://doi.org/10.1016/j.ceramint.2020.05.189> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

#### **Selective laser melting of Ti-B-Si system produced by SHS [Online resource]**

**Aydinyan, Sofiya; Liu, Le; Hussainova, Irina** Abstracts : 14th International Ceramics Congress 2018 / CB-10.2:L06 [http://2018.cimtec-congress.org/abstracts\\_focused\\_session\\_cb-10](http://2018.cimtec-congress.org/abstracts_focused_session_cb-10)

#### **Selective laser sintering of combustion synthesized titanium diboride based composites**

**Liu, Le; Minasyan, Tatevik; Aydinyan, Sofiya; Hussainova, Irina** European Powder Metallurgy Association : proceedings : 14 – 18 October 2018, Bilbao, Spain 2018 / art. 3987459 [USB] <https://www.epma.com/publications/euro-pm-proceedings/product/euro-pm2018-proceedings-usb>

### **SHS produced TiB<sub>2</sub>-Si powders for selective laser melting of ceramic-based composite**

**Liu, Le; Aydinyan, Sofiya; Minasyan, Tatevik; Hussainova, Irina** Applied sciences 2020 / art. 3283, 12 p. : ill  
<https://doi.org/10.3390/app10093283> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Sintering behavior of ZrC-TiC-MoSi<sub>2</sub> ceramic composite [Online resource]**

**Minasyan, Tatevik; Aydinyan, Sofiya; Liu, Le;** Cygan, Slawomir; **Hussainova, Irina** Explosive Production of New Materials : Science, Technology, Business, and Innovations 2018 / p. 148-150 : ill  
[http://www.ism.ac.ru/events/EPNM2018/EPNM2018\\_BookofPapers.pdf](http://www.ism.ac.ru/events/EPNM2018/EPNM2018_BookofPapers.pdf) <http://dx.doi.org/10.30826/EPNM18-052>

### **Sliding wear performance of AlCrN coating on TiB<sub>2</sub>/Ti composites at high temperatures**

Michalczewski, Remigiusz; Kalbarczyk, Marek; Słomka, Zbigniew; Osuch-Słomka, Edyta; Łuszcz, Maciej; **Liu, Le; Antonov, Maksim; Hussainova, Irina** Materials 2021 / art. 6771 <https://doi.org/10.3390/ma14226771> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Spark plasma sintering of combustion synthesized TiB<sub>2</sub>-Si composite**

**Liu, Le; Aydinyan, Sofiya; Minasyan, Tatevik; Baroninš, Janis; Antonov, Maksim;** Kharatyan, Suren; **Hussainova, Irina** Ceramics in modern technologies 2019 / p. 59-66 <https://doi.org/10.29272/cmt.2018.0009>

### **Synthesis and consolidation of Mo-Cu composite nanopowder [Online resource]**

**Minasyan, Tatevik;** Kirakosyan, Hasmik; **Aydinyan, Sofiya; Liu, Le; Hussainova, Irina;** Kharatyan, Suren Explosive Production of New Materials : Science, Technology, Business, and Innovations 2018 / p. 151-153 : ill  
[http://www.ism.ac.ru/events/EPNM2018/EPNM2018\\_BookofPapers.pdf](http://www.ism.ac.ru/events/EPNM2018/EPNM2018_BookofPapers.pdf) <http://dx.doi.org/10.30826/EPNM18-053>

### **ZrC based ceramics by high pressure high temperature SPS technique**

**Aydinyan, Sofiya; Minasyan, Tatevik; Liu, Le;** Cygan, Slawomir; **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. 125-130 : ill [https://www.ester.ee/record=b5235278\\*est](https://www.ester.ee/record=b5235278*est) <https://www.scientific.net/KEM.799.125>  
<https://doi.org/10.4028/www.scientific.net/KEM.799.125> [Conference proceeding at Scopus](#) [Article at Scopus](#)

### **ZrC-TiC-MoSi<sub>2</sub> 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](#)

### **The preparation of TiC/TiN composites by selective laser melting**

**Liu, Le; Minasyan, Tatevik; Aydinyan, Sofiya; 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. 165-170 : ill  
[https://www.ester.ee/record=b5235278\\*est](https://www.ester.ee/record=b5235278*est) <https://www.scientific.net/KEM.799.165> <https://doi.org/10.4028/www.scientific.net/KEM.799.165>  
[Conference proceeding at Scopus](#) [Article at Scopus](#)

### **The wear of PVD coated elements in oscillation motion at high temperature**

Michalczewski, Remigiusz; Kalbarczyk, Marek; Słomka, Zbigniew; **Liu, Le; Antonov, Maksim; Hussainova, Irina** Proceedings of the Estonian Academy of Sciences 2021 / p. 500-507 : ill <https://doi.org/10.3176/proc.2021.4.18> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Ti-B based composites by spark plasma sintering and selective laser melting = Sädepaagutus- ja selektiivse lasersulatus-tehnoloogia abil valmistatud Ti-B baasil komposiitmaterjalid**

**Liu, Le** 2021 [https://www.ester.ee/record=b5460101\\*est](https://www.ester.ee/record=b5460101*est) <https://digikogu.taltech.ee/et/Item/2a4de866-52a3-4bef-8c4e-e136c89285a3>  
<https://doi.org/10.23658/taltech.47/2021>

### **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/>