

Additively manufactured mesostructured MoSi₂-Si₃N₄ 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](#)

AlCo-rich AlCoNiFe and AlCoNiFeCr high entropy alloys: Synthesis and interaction pathway at high heating rates

Nazaretyan, K.; Aydinyan, Sofiya; Kirakosyan, H.; Moskovskikh, D.; Nepapushev, A.; Kuskov, K.; Tumanyan, M.; Zargaryan, A.; Traksmay, Rainer; Kharatyan, S. Journal of alloys and compounds 2023 / art. 167589, 13 p
<https://doi.org/10.1016/j.jallcom.2022.167589> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bio-inspired TiB₂-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 and consolidation of Ni-W nanocomposite material

Zakaryan, Marieta; Aydinyan, Sofiya; Kharatyan, Suren Ceramics in modern technologies 2019 / p. 67-74
<https://doi.org/10.29272/cmt.2018.0007>

Combustion synthesis and reactive spark plasma sintering of non-equiatomic coal-based high entropy intermetallics

Kuskov, Kirill Vasilevich; Nepapushev, Andrey A.; Aydinyan, Sofiya; Shaysultanov, Dmitry G.; Stepanov, Nikita D.; Nazaretyan, Khachik; Kharatyan, Suren; Zakharova, Elena V.; Belov, Dmitry S.; Moskovskikh, Dmitry O. Materials 2023 / art. 1490
<https://doi.org/10.3390/ma16041490> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Combustion synthesis of MAX phases: microstructure and properties inherited from the processing pathway

Aydinyan, Sofiya Crystals 2023 / art. 1143 <https://doi.org/10.3390/cryst13071143> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Combustion synthesis of MoSi₂ 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](#)

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

Combustion synthesis of silicon carbide by magnesio-carbothermic reduction of amorphous and crystalline silica

Kirakosyan, Hasmik; Nazaretyan, Khachik; Beglaryan, Hayk; Ivanov, Roman; Hussainova, Irina; Aydinyan, Sofiya Proceedings of the Estonian Academy of Sciences 2025 / p. 260-265 <https://doi.org/10.3176/proc.2025.2.31>

DTATG study of NiO Reduction by Mg+C combined reducer

Zakaryan, Marieta; Niazian, D.; Aydinyan, Sofiya; Kharatyan, Suren Հայաստանի քիմիական հանդես = Chemical Journal of Armenia = Химический журнал Армении 2018 / p. 473-485 : ill <http://chemistry.asj-oa.am/id/eprint/7899>
https://www.ester.ee/record=b1300031*est

Fabrication of Cu-Mo composites combining SHS and SLS technologies : poster presentation

Aydinyan, Sofiya; Minasyan, Tatevik; Kirakosyan, Hasmik; Aghayan, Marina; Hussainova, Irina; Kharatyan, Suren ECerS 2017 : 15th Conference & Exhibition of the European Ceramic Society, July 9-13, 2017, Budapest, Hungary : Book of abstracts 2017 / p. 48 <https://static.akcongress.com/downloads/ecers/ecers2017-abstract-book.pdf>

Fabrication of Cu-W nanocomposites by integration of self-propagating high-temperature synthesis and hot explosive consolidation technologies

Aydinyan, Sofiya; Kirakosyan, Hasmik; Zakaryan, Marieta Eurasian chemico-technological journal 2018 / p. 301-309 : ill
<https://doi.org/10.18321/ectj763>

High pressure high temperature consolidation of ZrC based ceramic composites

Minasyan, Tatevik; Aydinyan, Sofiya; Liu, Lei; Cygan, Slawomir; Hussainova, Irina [2018 World Congress on Powder Metallurgy (WORLDPM2018), Beijing, China, 16-18 September 2018] 2018 / p. [515-518] : [USB]

High-entropy (Ti_{0.4}Ta_{0.4}V_{0.4}Nb_{0.4}Cr_{0.4})AlC MAX phase synthesized by SHS : structural, thermal, and mechanical insights

Melkonyan, S.; Zakaryan, Marieta; Grigoryan, Y.; Hussainova, Irina; Aydinyan, Sofiya; Kharatyan, Suren JTACC+V4 2025 : 4th Journal of Thermal Analysis and Calorimetry Conference & 10th V4 (Joint Czech-Hungarian-Polish-Slovak) Thermoanalytical Conference : Book of Abstracts 2025 / p. 179 <https://static.akcongress.com/downloads/jtacc/jtacc2025/jtacc2025-ba.pdf>

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.

In situ Mo(Si,Al)₂-based composite through selective laser melting of a MoSi₂-30 wt.% AlSi10Mg mixture

Minasyan, Tatevik; Aydinyan, Sofiya; Toyserkani, Ehsan; **Hussainova, Irina** Materials 2020 / art. 3720 ; 13 p
<https://doi.org/10.3390/ma13173720> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

The influence of high-energy ball milling and nanoadditives on the kinetics of heterogeneous reaction in Ni-Al system

Nazaretyan, Khachik; Kirakosyan, Hasmik; **Aydinyan, Sofiya;** Zakaryan, Marieta; Abovyan, L. S.; Kulak, M.; Khina, B. IOP conference series : materials science and engineering 2021 / art. 012052 <https://doi.org/10.1088/1757-899X/1140/1/012052>

The influence of thermal dilution on the microstructure evolution of some combustion-synthesized refractory ceramic composites

Aydinyan, Sofiya; Kharatyan, Suren; **Hussainova, Irina** Crystals 2022 / art. 59 <https://doi.org/10.3390/cryst12010059> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

The interaction pathway in the mechano-ultrasonically assisted and carbon-nanotubes augmented nickel-aluminum system

Nazaretyan, Khachik; Kirakosyan, Hasmik; **Volobujeva, Olga; Aydinyan, Sofiya** Metals 2022 / art. 436
<https://doi.org/10.3390/met12030436> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Joint reduction of NiO + WO₃ oxides by combined Mg/C reducer. Synergetic effect

Zakaryan, Marieta; Nazaretyan, K.; **Aydinyan, Sofiya;** Kharatyan, Suren XV International Symposium on Self-Propagating High Temperature Synthesis, September 16-20, 2019 2019 / p. 546-548 : ill
http://www.ism.ac.ru/events/SHS2019/doc/abstract_shs2019.pdf

Joint reduction of NiO/WO₃ pair and NiWO₄ by Mg + C combined reducer at high heating rates

Zakaryan, Marieta; Nazaretyan, Khachik; **Aydinyan, Sofiya;** Kharatyan, Suren Metals 2021 / art. 1351, 13 p. : ill
<https://doi.org/10.3390/met11091351> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Kinetic highlights of the reduction of silver tungstate by Mg + C combined reducer

Zakaryan, Marieta; Nazaretyan, Khachik; **Aydinyan, Sofiya;** Kharatyan, Suren Metals 2022 / art. 1000
<https://doi.org/10.3390/met12061000> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Lattice of MoSi₂/Si₃N₄ 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>

Magnesio-carbothermal reduction of CuWo₄/MeO nanostructured precursors & synthesis of W/Cu composite materials

Zakaryan, Marieta; Kirakosyan, Hasmik; Abovyan, L.; **Aydinyan, Sofiya;** Kharatyan, Suren Chemical Journal of Armenia 2017 / p. 450-461 <http://chemistry.asj-oa.am/id/eprint/7826>

The mechanism of joint reduction of MoO₃ and CuO by combined Mg/C reducer at high heating rates

Kirakosyan, Hasmik; Nazaretyan, Khachik; **Aydinyan, Sofiya;** Kharatyan, Suren Journal of composites science 2021 / art. 318, 20 p. : ill <https://doi.org/10.3390/jcs5120318> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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

Microstructure and high temperature tribological behaviour of self-lubricating Ti-TiB_x composite doped with Ni-Bi

Kumar, Rahul, 1993-; Torres, Hector; Aydinyan, Sofiya; Antonov, Maksim; Varga, Markus; Rodriguez Ripoll, Manel; Hussainova, Irina Surface and coatings technology 2022 / art. 128827 <https://doi.org/10.1016/j.surfcoat.2022.128827> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Microwave synthesis of B₄C 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-Cu pseudoalloys by combustion synthesis and spark plasma sintering

Minasyan, Tatevik; Kirakosyan, Hasmik; **Aydinyan, Sofiya;** Liu, Lei; Kharatyan, Suren; **Hussainova, Irina** Journal of materials science 2018 / p. 16598–16608 <https://doi.org/10.1007/s10853-018-2787-1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mo(Si1-x,Alx)2-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](#)

MoSi2 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>

MoSi2-based composites by selective laser melting = Selektiivse lasersulatuse teel valmistatud MoSi2 baasil komposiidid

Minasyan, Tatevik 2020 https://www.ester.ee/record=b5388072*est <https://digikogu.taltech.ee/et/Item/26aa1fe6-b853-43b8-887a-51b6efa0b5ef>

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-Propagating High Temperature Synthesis, September 25-28, 2017, Tblisi, Georgia : Book of Abstracts 2017 / p. 175-176 : ill http://mmi.ge/uploads/files/2017-10/1507298270_book-of-abstracts-shs-2017.pdf

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 СВС-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>

NiO and WO3 coreduction by combined reducers Mg/C and preparation of W-Ni alloy [Online resource]

Zakaryan, Marieta; **Aydinyan, Sofiya;** Kharatyan, Suren Abstracts : 14th International Ceramics Congress 2018 / CB-10.2:L03 http://2018.cimtec-congress.org/abstracts_focused_session_cb-10

NiO reduction by Mg plus C combined reducer at high heating rates

Zakaryan, Marieta; Nazaretyan, K.T.; **Aydinyan, Sofiya;** Kharatyan, Suren Journal of thermal analysis and calorimetry 2021 / p. 1811-1817 : ill <https://doi.org/10.1007/s10973-020-10148-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A novel approach for synthesizing silver nanoparticles with antibacterial and cytotoxic activities using the leaf extract of hydroponically grown Moringa oleifera

Aghajanyan, Anush; Timotina, Marina; Manutsyan, Tatevik; Harutyunyan, Ani; Ginovyan, Mikayel; Schubert, Robin; **Aydinyan, Sofiya;** Trchounian, Karen; Gabrielyan, Lilit; Gabrielyan, Liana Scientific Reports 2025 / art. 16637 <https://doi.org/10.1038/s41598-025-01023-0>

Novel approach for the preparation of shapes from TiB2-Si3N4 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 TiB2-Si3N4 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 Si3N4 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](#)

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](#)

A novel route for the preparation of TiB₂/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/>

Parametric study on in situ Laser powder bed fusion of Mo(Si_{1-x}Al_x)₂

Minasyan, Tatevik; Aydinyan, Sofiya; Toyserkani, Ehsan; **Hussainova, Irina** Materials 2020 / art. 4849, 17 p. : ill <https://doi.org/10.3390/ma13214849> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Phase and microstructure evolution patterns at combustion synthesis of high-entropy M₂AlC (M=Ti/Ta/V/Nb/Cr) MAX phase

Melkonyan, Syuzanna; Zakaryan, Marieta; Grigoryan, Yeva; Kharatyan, Suren; **Hussainova, Irina;** Chabanais, Florian; Shamshirgar, Ali Saffar; Persson, Per O. A.; Rosen, Johanna; **Aydinyan, Sofiya** Journal of materials research and technology 2025 / p. 5800-5807 <https://doi.org/10.1016/j.jmrt.2025.10.186>

The preparation of high-entropy refractory alloys by aluminothermic reduction process

Kirakosyan, Hasmik; Nazaretyan, Khachik; Kharatyan, Anahit; **Aydinyan, Sofiya** Modern materials and manufacturing 2023 2024 / art. 040012 <https://doi.org/10.1063/5.0189206> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Preparation of nanosize MO₂C 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>

Rapid and scalable combustion synthesis of (Mo₂/3Y₁/3)AlC i-MAX as the precursor for vacancy-ordered MXene

Saffarshamshirgar, Ali; **Ivanov, Roman; Aydinyan, Sofiya;** Ghosh, Sohan; Chabanais, Florian; Ronchi, Rodrigo M.; Halim, Joseph; Elsukova, Anna; Qin, Lei; Nazaretyan, Khachik; **Hussainova, Irina** Journal of Material Science and Technology 2026 / p. 157-169 <https://doi.org/10.1016/j.jmst.2025.09.014>

Reaction pathway in the WO₃-NiO-Mg-C system. DTA/TG study

Zakaryan, Marieta; Niazian, O.; **Aydinyan, Sofiya;** Kharatyan, Suren Chemical Journal of Armenia 2019 / p. 223-232 <http://chemistry.asj-oa.am/id/eprint/7944>

Reduction mechanism of WO₃ + CuO mixture by combined Mg/C reducer : non-isothermal conditions - high heating rates

Aydinyan, Sofiya; Nazaretyan, Khachatur; Zargaryan, A.G.; Tumanyan, M.E.; Kharatyan, Suren Journal of thermal analysis and calorimetry 2018 / p. 261–269 : ill <https://doi.org/10.1007/s10973-018-6985-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 Combustion Synthesized 2Mo-Cu and 3Cu-Mo Composites

Minasyan, Tatevik; Aydinyan, Sofiya; Kharatyan, Suren SHS 2017 : XIV International Symposium On Self-Propagating High Temperature Synthesis, September 25-28, 2017, Tbilisi, Georgia : Book of Abstracts 2017 / p. 155–156 : ill http://mmi.ge/uploads/files/2017-10/1507298270_book-of-abstracts-shs-2017.pdf

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 BALTMATRIB 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://doi.org/10.4028/www.scientific.net/KEM.799.257> [Conference proceeding at Scopus](#) [Article at Scopus](#)

Selective laser melting of TiB₂-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

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>

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

SHS produced TiB₂-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](#)

SHS reprocessing of copper oxide waste into copper powder

Mahmoudi, H. A.; Abovyan, L.S.; **Aydinyan, Sofiya;** Kharatyan, Suren International Journal of Self-propagating High-temperature Synthesis 2019 / p. 233–238 : ill <https://doi.org/10.3103/S1061386219040095> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

SHS-derived powders by reactions' coupling as primary products for subsequent consolidation

Aydinyan, Sofiya; Kharatyan, Suren; **Hussainova, Irina** Materials 2021 / art. 5117 <https://doi.org/10.3390/ma14175117> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

SHS-derived powders obtained by coupled reactions and thermal dilution for subsequent consolidation

Aydinyan, Sofiya; Hussainova, Irina; Kharatyan, Suren 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

Sintering behavior of ZrC-TiC-MoSi₂ 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://dx.doi.org/10.30826/EPNM18-052>

Sintering of silicon carbide obtained by combustion synthesis

Amirkhanyan, Narine; Kirakosyan, Hasmik; Zakaryan, Marieta; Zurnachyan, Alina; Rodriguez, Miguel Angel; Abovyan, L.; **Aydinyan, Sofiya** Ceramics international 2023 / p. 26129-26134 <https://doi.org/10.1016/j.ceramint.2023.04.233> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solution combustion synthesis and spark plasma sintering of magnetic high entropy materials

Kirakosyan, Hasmik; Sargsyan, Armen; **Aydinyan, Sofiya;** Kharatyan, Suren 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

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](#)

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](#)

Spark plasma sintering of combustion synthesized TiB₂-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>

Study of reduction mechanism of WO₃+CuO mixture by combined Mg/C reducer - influence of high heating rate

Nazaretyan, Khachik; Zargaryan, Armen; **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. 206-207 <https://static.akcongress.com/downloads/jtacc/jtacc2017-book-of-abstracts.pdf>

Superhard B₄C-ReB₂ composite by SPS of microwave synthesized nanopowders

Mnatsakanyan, R.; Davtyan, D.; **Minasyan, Tatevik; Aydinyan, Sofiya; Hussainova, Irina** Materials letters 2021 / art. 129163, 5 p. : ill <https://doi.org/10.1016/j.matlet.2020.129163> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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://dx.doi.org/10.30826/EPNM18-053>

Synthesis of Ni–W nanopowders from oxide and salt precursors in combustion mode by using thermo-kinetic coupling approach [Online resource]

Zakaryan, Marieta; **Aydinyan, Sofiya**; Kharatyan, Suren Explosive Production of New Materials : Science, Technology, Business, and Innovations 2018 / p. 298-300 : ill http://www.ism.ac.ru/events/EPNM2018/EPNM2018_BookofPapers.pdf
<http://dx.doi.org/10.30826/EPNM18-103>

Synthesis of Ti₂AlC MAX phase and Ti₂C MXene by activated combustion

Aydinyan, Sofiya Ceramics international 2024 / p. 12263-12269 <https://doi.org/10.1016/j.ceramint.2024.01.130> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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.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-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](#)

The mechanism of WO₃(MoO₃) & CuO coreduction by combined Mg/c reducer at non isothermal conditions

Aydinyan, Sofiya; Kharatyan, Suren SHS 2017 : XIV International Symposium On Self-Propagating High Temperature Synthesis, September 25-28, 2017, Tblisi, Georgia : Book of Abstracts 2017 / p. 45-47 : ill http://mmi.ge/uploads/files/2017-10/1507298270_book-of-abstracts-shs-2017.pdf

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.scientific.net/KEM.799.165> <https://doi.org/10.4028/www.scientific.net/KEM.799.165>
[Conference proceeding at Scopus](#) [Article at Scopus](#)

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://digikogu.taltech.ee/et/Item/2a4de866-52a3-4bef-8c4e-e136c89285a3>
<https://doi.org/10.23658/taltech.47/2021>

Tribological behavior of Ni-based self-lubricating claddings containing sulfide of nickel, copper, or bismuth at temperatures up to 600 °C

Kumar, Rahul, 1993-; Torres, Hector; Aydinyan, Sofiya; Antonov, Maksim; Varga, Markus; **Hussainova, Irina**; Rodríguez Ripoll, Manel Surface and coatings technology 2023 / art. 129270, 14 p. : ill <https://doi.org/10.1016/j.surfcoat.2023.129270> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ultrahigh pressure spark plasma sintering of ZrC-TiC-MoSi₂ and ZrC-TiC-Si₃N₄ 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/>

Термическое и кинетическое сопряженные реакций при самораспространяющемся высокотемпературном синтезе материалов

Aydinyan, Sofiya; Kharatyan, Suren Технологическое горение 2019 / с. 429-451 <https://www.elibrary.ru/item.asp?id=41525861>