

### **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](http://2022.cimtec-congress.org/focused-session-ca-11_1)

### **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>

### **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 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](#)

### **Magnesio-carbothermal reduction of CuWo<sub>4</sub>/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 MoO<sub>3</sub> 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](#)

### **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](#)

### **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](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 CBC-50, приуроченная к 50-летнему 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>

### **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>

### **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>

### **Preparation of nanosize MO<sub>2</sub>C 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>

### **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

### **Sintering of silicon carbide obtained by combustion synthesis**

Amirkhanyan, Narine; Kirakosyan, Hasmik; Zakaryan, Marieta; Zurnachyan, Alina; Rodriguez, Miguel Angel; Aboyan, L.; **Aydinyan, Sofiya** Ceramics international 2023 / p. 26129-26134 <https://doi.org/10.1016/j.ceramint.2023.04.233>

### **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](http://2022.cimtec-congress.org/focused-session-ca-11_1)

### **Solution combustion synthesis of MnFeCoNiCu and (MnFeCoNiCu)<sub>3</sub>O<sub>4</sub> 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](#)

### **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>