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WORK EXPERIENCE

07/2020 – present time – senior researcher, Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia

09/2014 – 07/2020 – researcher, Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava, Slovakia

EDUCATION

2010 – 2014 – PhD study at Institute of Inorganic Chemistry, Slovak Academy of Science, Bratislava, Slovakia, PhD. Degree in Inorganic Technology and Materials

2004 – 2009 – MSc. study at Faculty of Industrial Technologies, University of Alexander Dubček in Trenčín, Slovakia, MSc. Degree in Material Engineering

RESEARCH AREAS

- Preparation and sintering of granulated composite ceramic powders with graphene or carbon nanotubes.
- Characterization of functional properties (electrical conductivity, thermal diffusivity, thermal conductivity) of ceramic carbon-nanostructure composites.
- Preparation and characterization of silicon carbide ceramics with high thermal conductivity.

PUBLICATIONS

- Publications – 43 (Scopus)
 - Number of citation – 421
 - h-index – 14
1. **HANZEL, Ondrej**** - TATARKOVÁ, Monika - NETRIOVÁ, Zuzana - ŠAJGALÍK, Pavol. Effect of phase composition on thermal and electrical conductivity of additive-free silicon carbide ceramics. In Journal of the European Ceramic Society, 2025, vol. 42, no. 4, art no. 117077. (2024: 6.2 - IF, Q1 - JCR, 1.3 - SJR, Q1 - SJR). ISSN 0955-2219. <https://doi.org/10.1016/j.jeurceramsoc.2024.117077>
 2. BHANDARI, Subhadip - **HANZEL, Ondrej** - VETEŠKA, P. - JANEK, Marián - DE BONA, Emanuele - SGLAVO, Vincenzo M. - BIESUZ, Mattia** - FRANCHIN, Giorgia**. From rapid prototyping to rapid firing: on the feasibility of high-speed production for complex BaTiO₃ components. In Journal of the American Ceramic Society, 2024, vol. 107, no. 10, p. 6562-6573. (2023: 3.5 - IF, Q1 - JCR, 0.819 - SJR, Q1 - SJR). ISSN 0002-7820. <https://doi.org/10.1111/jace.19950>

3. ŠAJGALÍK, Pavol - CHENG, Zanlin - HAN, X. - ZHANG, Chengyu - **HANZEL, Ondrej**** - SEDLÁČEK, Jaroslav - ORLOVA, Tatyana - ZHUKOVSKYI, Maksym - MUKASYAN, Alexander S. Ultra-high creep resistant SiC ceramics prepared by rapid hot pressing. In Journal of the European Ceramic Society, 2022, vol. 42, no. 3, p. 820–829. (2021: 6.364 - IF, Q1 - JCR, 1.107 - SJR, Q1 - SJR, karentované - CCC). (2022 - Current Contents, WOS, SCOPUS). ISSN 0955-2219. <https://doi.org/10.1016/j.jeurceramsoc.2021.11.010>
4. **HANZEL, Ondrej**** - LENČEŠ, Zoltán - KIM, Young-Wook - FEDOR, Ján - ŠAJGALÍK, Pavol. Highly electrically and thermally conductive silicon carbide-graphene composites with yttria and scandia additives. In Journal of the European Ceramic Society, 2020, vol. 40, no. 2, p. 241-250. (2019: 4.495 - IF, Q1 - JCR, 1.164 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0955-2219. <https://doi.org/10.1016/j.jeurceramsoc.2019.10.001>
5. KIM, Young-Wook - KULTAYEVA, Shynar - SEDLÁČEK, Jaroslav - **HANZEL, Ondrej** - TATARKO, Peter - LENČEŠ, Zoltán - ŠAJGALÍK, Pavol**. Thermal and electrical properties of additive-free rapidly hot-pressed SiC ceramics. In Journal of the European Ceramic Society, 2020, vol. 40, no. 2, p. 234-240. (2019: 4.495 - IF, Q1 - JCR, 1.164 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0955-2219. <https://doi.org/10.1016/j.jeurceramsoc.2019.10.015>

PROJECTS

1. **APVV-24-0442** – Development of silicon carbide for extreme application, 09/2025-08/2029, **principal investigator**
2. **VEGA 2/0094/25** – Silicon carbide ceramic composite materials with high thermal conductivity, 01/2025-12/2028, **principal investigator**
3. **VEGA 2/0007/21** – Electromagnetic shielding properties of functionally graded layered SiC-graphene and SiC-carbon nanotubes composites, 01/2021-12/2024, **principal investigator**
4. **VEGA 2/0065/14** – Improvement of functional properties of ceramic materials with the addition of carbon nano-tubes and graphene, 01/2014-12/2017, **investigator**
5. **MVTS-CERANEA** – Multifunctional Ceramic/Graphene Coatings for New Emerging Applications, 01/2018-12/2020, **investigator**

MEMBERSHIPS

- member of Slovak Silicate Society

LANGUAGES

- English – fluent, German – basic knowledge

AWARDS

2021 – Award for scientific results in the field of research and development of ceramic composites with graphene (Scientific team of the year 2021 led by Ján Dusza and Pavol Šajgalík)

Ministry of Education, Science, Research and Sport of the Slovak Republic

2019 – 2nd place in the competition of young scientists of Slovak Academy of Sciences up to 35 years old for the best set of scientific publications.