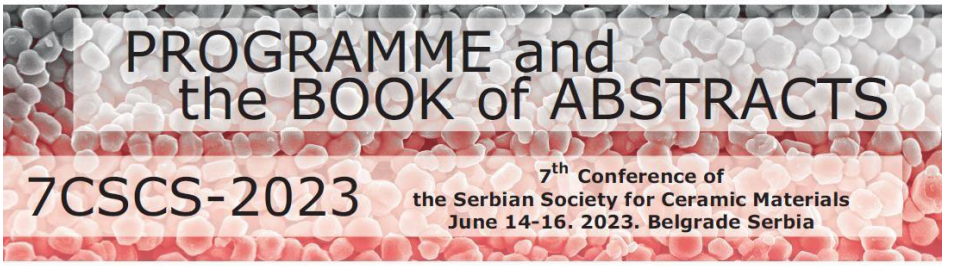
The Serbian Society for Ceramic Materials
Institute for Multidisciplinary Research (IMSI), University of Belgrade
Institute of Physics, University of Belgrade
Center of Excellence for the Synthesis, Processing and Characterization of Materials for use in Extreme Conditions "CEXTREME LAB" - Institute of Nuclear Sciences "Vinča", University of Belgrade
Faculty of Mechanical Engineering, University of Belgrade
Center of Excellence for Green Technologies, Institute for Multidisciplinary Research, University of Belgrade
Faculty of Technology and Metallurgy, University of Belgrade



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Vladimir V. Srdić

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PROGRAMME AND THE BOOK OF ABSTRACTS

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Figure 1. Unit cell of the crystalline hybrid organic-inorganic perovskite hexagonal structure – $GASnI_3$ (GA – guanidinium cation, $C(NH_2)_3^+$) (space group P63/m), visualized by the VESTA program.

1. C.C. Stoumps, *J. Am. Chem. Soc.*, **137** (2015) 6804–6819.
2. C.C. Stoumps, *Inorg. Chem.*, **56** (2017) 56–73.

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EXAMINATION OF IQOS RESIDUE, ENVIRONMENTAL IMPACT AND POTENTIAL APPLICATION

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IQOS (I-Quit-Ordinary-Smoking) is a brand of heated tobacco. It is an alternative to traditional cigarettes, which involves heating tobacco rather than burning it. IQOS devices heat tobacco sticks, called HEETS or HeatSticks, to a temperature that is high enough to release nicotine and flavor, but not high enough to produce smoke.

After consuming IQOS, we treated the remains of HEETS with pyrolysis at 800 degrees. In this way, we have protected the environment from pollution, and in addition, we have obtained carbon material, which further has various applications. The obtained final product was tested using different methods and based on the tested properties, it can be said that the material can potentially be used as an energy fuel, a supercapacitor, for the removal of organic compounds, a drug carrier, etc.

Keywords: IQOS, carbon material, enviroment