

Vth International Symposium on Nanoparticles Nanomaterials and Applications





24th - 27th January 2022 Vth International Symposium on Nanoparticles, Nanomaterials and Applications 2022

BOOK OF ABSTRACTS

Caparica | Portugal 24th – 27th January 2022

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P.14 – Structural characterization of titanate–ferrite composites

Marija Šuljagić¹*, Dejan Jeremić², Aleksandar Nikolić³, Ljubica Andjelković¹

¹University of Belgrade-Institute of Chemistry, Technology and Metallurgy, Department of Chemistry, Njegoševa 12, Belgrade, Republic of Serbia. ²Innovation Center of the Faculty of Chemistry, University of Belgrade, Studentski Trg 12-16, Belgrade, Republic of Serbia. ³University of Belgrade, Faculty of Chemistry, Studentski Trg 12-16, Belgrade, Republic of Serbia * email: marija.suljagic@ihtm.bg.ac.rs

Barium titanate–nickel ferrite, barium titanate–zinc ferrite, and barium titanate–nickel-zinc ferrite composite powders prepared by thermal decomposition method were characterized by Raman spectroscopy, scanning electron microscopy (SEM), and X-Ray powder diffraction (XRPD). Obtained materials consisted of pure perovskite and spinel phases. Scanning electron microscopy analyses revealed that the morphology of investigated samples is not uniform, and aggregation of individual particles is a dominant process in all cases. Raman spectroscopy suggested that in the case of barium titanate–nickel ferrite, the coupling of two phases occurred and the core-shell structure was partially formed, while for barium titanate–zinc ferrite the coupling effect is less pronounced.