

Investigation of $\text{Co}_{0.9}\text{Ho}_{0.1}\text{MoO}_4$ Nanopowders Obtained by Glycine Nitrate Procedure

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Дигитални репозиторијум Рударско-геолошког факултета Универзитета у Београду

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Society of Chemists and Technologists of Macedonia

Сојуз на хемичарите и технолозите на Македонија

**26th Congress of
SCTM
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BOOK of ABSTRACTS

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Република Македонија
Министерство за образование и наука

Ss. Cyril and Methodius University, Skopje



Keywords: Alkali activated materials, kaolin, fly ash, XPS, HR-TEM, natural radioactivity

ICTM P-3

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Nanometric size $\text{Co}_{0.9}\text{Ho}_{0.1}\text{MoO}_4$ powder particles were obtained by applying glycine nitrate procedure (GNP). Powder properties have been studied by DTA, X-ray diffraction (XRD), Fourier transform infrared (FT-IR) spectra, Spectroscopy, Field emission scanning electron microscopy (FESEM), and nitrogen adsorption method. The photocatalytic activity of acquiring $\text{Co}_{0.9}\text{Ho}_{0.1}\text{MoO}_4$ nanopowders was estimated by the photocatalytic degradation of crystal violet in an aqueous solution. We present a simple and effective method for controlling the composition and morphology of $\text{Co}_{0.9}\text{Ho}_{0.1}\text{MoO}_4$, as well as a possible new approach in inorganic synthesis methodology. During photocatalytic testing, the studied nanoparticle powder indicated a potentially promising solution in photocatalytic processes toward green chemistry and sustainable development.

Keywords: X-ray diffraction, Electron microscopy, Nanostructured materials
