

BOOK of ABSTRACTS

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EXAMINATION OF NANOSTRUCTURED CoMoO₄ OBTAINED BY GLYCINE NITRATE PROCEDURE

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The synthesis route by solution combustion, a glycine nitrate procedure (GNP) of CoMoO₄ nanopowders by a glycine as a fuel and as a complexant was examined concerning the photocatalytic aspects and powder characteristics. The synthesized samples were investigated by differential thermal analysis (DTA), Fourier transform infrared spectroscopy (FTIR), X-ray diffraction (XRD), Field emission scanning electron microscopy (FESEM) and nitrogen adsorption method. In this work, we presented a simple and effective method for controlling the composition and morphology of CoMoO₄. A single-phase α and β crystalline form of CoMoO₄ compound was confirmed by X-ray diffraction (XRD). The photocatalytic testing of CoMoO₄ nanopowders showed that these nanostructured materials can be promising solutions in photocatalytic processes toward green chemistry and sustainable development.

Keywords: X-ray diffraction, electron microscopy, nanostructured materials.

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