Synthesis and Characterization of Nanocomposite Silver/Silver Orthovanadate by Microwave-Assisted Hydrothermal Method

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Historically, the development of new methods for the synthesis of materials has been linked to the development of societies, mainly due to the ability to promote changes in materials and enable new types of technological applications. The proposal of this project has as main objectives to synthesize and characterize particulate nanocomposites of Ag3VO4 \ Ag by microwave-assisted hydrothermal method (MAHM) at different times (t: 2, 4, 8, 16, 32, 64 min). The powders obtained from the composites will be structurally characterized by the techniques of X-ray diffraction (XRD), Raman scattering spectroscopy (FT-Raman) and electronic spectroscopy in the ultraviolet-visible (UV-vis) region, and will have the surface characterized by scanning electron microscopy (FEG-SEM), allowing the identification of structural and surface changes, as well as possible influences of the synthesis time in its formation.