World Academy of Science, Engineering and Technology
International Journal of Chemical and Materials Engineering
Vol:18, No:12, 2024

Investigation of NiO/V_2O_5 Powder Composite as Cathode Material for Lithium-Ion Batteries

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Abstract : Transition metal oxide composites have been widely reported in energy storage and conversion systems. In this regard, an attempt has been made to synthesize $NiO@V_2O_5$ nanocomposite. The structures and morphology of synthesized powder are investigated by X-ray diffraction, scanning electron microscope (SEM), and Attenuated Total Reflection (ATR). The electrochemical properties and performances as cathode electrodes based on active material $NiO@V_2O_5$ were studied by cyclic voltammetry (CV), between potential bias [0.01V to 3V], with scanning speed of $0,1mVs^{-1}$, the galvanostatic charge/discharge (CDG) for 100 cycles was also measured.

Keywords : composite nanobelts, vanadium pentoxide, nickel oxide, Li-ion batteries
Conference Title : ICSCA 2024 : International Conference on Synthetic Chemistry and Applications
Conference Location : Rome, Italy
Conference Dates : December 16-17, 2024