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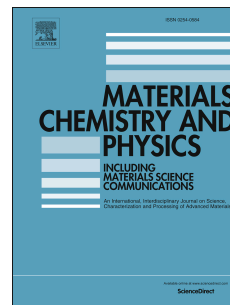
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SYNTHESIS AND CHARACTERIZATION OF MOLYBDENUM CARBIDE
DOPED WITH NICKEL

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ABSTRACT

With the increase in the national and world energy demand, we have sought the development of new processes of energy production that have a positive cost-benefit ratio with low environment risk, and that is ease for transportating and using. In recent years transitional metal carbides have received special attention in the area of heterogeneous catalysis, due to their physical and chemical properties. The molybdenum carbide (Mo_2C) is an excellent low cost catalytic material. Doping it with nickel is thought to yield satisfactory catalytic activity. Thus, this work aims to develop the study of the synthesis, characterization and sintering of semiconductor materials with carbide type structure, using the gas-solid reaction method in a fixed bed reactor. The composition of the materials studied was Ni-doped Mo_2C in the percentage of 5 and 10% of this dopant. This material had its chemical and morphological characteristics evaluated using the XRD, TGA, BET, dilatometry, SEM and EDS analyzes. When analyzing the results of the characterization by

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