

عنوان مقاله:

Hydrogenation of Carbon Dioxide Using a New Green System of Biogenic ZnO Nanoparticles

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خلاصه مقاله:

Microorganisms create metal nanoparticles (MNPs) after being exposed to toxic metal ions. Nevertheless, the catalytic performance of biosynthesized MNPs has not been investigated in spite of the possibility of utilizing these biological processes in the stable improvement of vital metals (e.g. zinc oxide). This strategy has excellent advantages like high economic efficiency and tolerance of functional groups. DaZnO NPs characteristics were recognized by numerous techniques, including FT-IR, SEM, TEM, XRD, and EDS analyses. In this study, biogenic zinc oxide nanoparticles were produced by the *Desulfovibrio alaskensis* to reduce carbon dioxide for the preparation of formate salts in an aqueous medium.

کلمات کلیدی:

*desulfovibrio alaskensis*, green chemistry, zinc oxide, nanocatalyst, carbon dioxide

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