

## عنوان مقاله:

VO(acac)<sub>2</sub> Supported on Ethylenediamine Functionalized Hydrous Zirconia Nano-Particles for Catalytic Epoxidation of Alkenes

## محل انتشار:

فصلنامه شیمی معدنی، دوره 4، شماره 2 (سال: 1399)

تعداد صفحات اصل مقاله: 11

## نویسندگان:

Ehsan Nazari Sasi Colomi - Faculty of Chemistry, Shahrood University of Technology, Shahrood, Iran

Mahdi Mirzaee - Faculty of Chemistry, Shahrood University of Technology, Shahrood, Iran

Bahram Bahramian - Faculty of Chemistry, Shahrood University of Technology, Shahrood, Iran

## خلاصه مقاله:

Hydrous zirconia nanoparticles were covalently functionalized by 3-(trimethoxysilyl)-propylchloride and ethylenediamine to support VO(acac)<sub>2</sub> complex. The prepared catalyst has been characterized by means of FT-IR spectroscopy, PXRD pattern, thermal analysis, elemental analysis, and scanning electron microscopy. Then it was used for the epoxidation of cis-cyclooctene. The catalytic procedure was subsequently investigated for each catalyst and followed by Gas-Liquid Chromatography. It was also applied repeatedly in the optimum reaction conditions to reveal its recycling ability. Then these conditions were used for successful epoxidation of other linear and non-linear alkenes.

## کلمات کلیدی:

Hydrous Zirconia nanoparticles (ZNP), Bis-acetylacetonate-oxo-vanadium, Epoxidation, Ethylenediamine, 3-(Trimethoxysilyl)-propylchloride

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1141747>

