

## عنوان مقاله:

Development of gelatin microsphere encapsulated Cu-based metal-organic framework for methotrexate delivery

## محل انتشار:

پنجمین کنفرانس ملی پژوهش های نوین در شیمی و مهندسی شیمی (سال: 1397)

تعداد صفحات اصل مقاله: 8

## نویسندگان:

Parinaz Nezhad-Mokhtari - *Polymer Research Laboratory, Department of Organic and Biochemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran*

Hessamaddin Sohrabi - *Department of analytical chemistry, Faculty of chemistry, University of Tabriz, Tabriz, Iran*

## خلاصه مقاله:

The purpose of the study is to the effective approach for the development of methotrexate (MTX) loaded as an anticancer drug into Cu-based metal-organic framework nanohybrid (Cu-MOF/MTX) inserted in pH-sensitive gelatin microsphere biopolymer (Cu-MOF/MTX@GM). MTX was loaded into two-dimensional tunnels and the empty face-centered cubic lattice of Cu-MOF porous. The developed Cu-MOF/MTX@GM was characterized using SEM, XRD, and FTIR analysis. In vitro drug release was revealed through the comparison of the simulated physiological conditions and tumor tissue environment for showing the MTX release ability of the obtained novel microspheres. According to the obtained results, the developed carrier has promising qualities as an excellent candidate for target delivery of MTX to cancer tissues.

## کلمات کلیدی:

Metal-organic framework, Gelatin microsphere, Controlled release, Methotrexate

## لینک ثابت مقاله در پایگاه سیویلیکا:

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