

عنوان مقاله:

Gelation Behavior of Poly(Methacrylamide-co-Methacrylic acid) in the Presence of Hydroxyapatite Powder Using Stress Viscometry

محل انتشار:

کنفرانس بین المللی فرآورش پلیمرها (سال: 1390)

تعداد صفحات اصل مقاله: 4

نویسندگان:

Aboulfazi Barati - *Chemical Engineering Department, Faculty of Engineering, Arak University*

Seyyed Mohammad Hossein Haddad

Taghi Miri

خلاصه مقاله:

Hydroxyapatite (HA) as the main constituent of bone, due to its good biocompatibility is used in form of the porous ceramic scaffolds in bone tissue engineering. In this paper, based on Morissete and Lewis's theoretical effort, the catalytic effect of hydroxyapatite powder onto reaction rate of Methacrylamide-co-Methacrylic acid based gelcasting system were investigated using stress viscometry as a function of monomers weight fraction, ceramic powder volume fraction (12 - 18), temperature (25 - 55 C), initiator concentration (0.2 - 0.4 molar concentration on the monomer base). Results revealed that increasing temperature was most effective in reducing idle time than other factors in this system. Also increasing the volume of ceramic powder was most effective in reducing the processing time than other factors

کلمات کلیدی:

Kinetic, Hydroxyapatite, Idle time, Processing time, stress viscometry

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/133948>

