عنوان مقاله:

SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL ACTIVITY OF DI-VANADIUM PENTA OXIDE NANOPARTICLES

محل انتشار:

دومین همایش ملی تجهیزات ومواد آزمایشگاهی صنعت نفت ایران (سال: 1395)

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خلاصه مقاله:

Metallic oxide vanadium nanoparticles have been synthesized by the sol-gel method in starch media. Thestructure of this nanoparticle was investigated using Scanning Electron Microscopy (SEM) and X-ray diffraction analysis(XRD). In the other part of this study the antimicrobial activity of V2O5 nano particles were determined by several methods.Our studies showed that the vanadium oxide nanoparticles had high activity against some bacteria. The antimicrobialactivity of this compound was also evaluated against Escherichia coli (PTCC 1330), Staphylococcus aureus (PTCC 1112),Pseudomonas aeruginosa (PTCC 1214) and three clinical strains (Listeria monocytogenes, Klebsiella sp, Eterococcusfaecalis) the results showed the nanoparticles have significant antibacterial activities.

کلمات کلیدی:

V2O5 nanoparticles, Sol-Gel, Green method, Antibacterial