## عنوان مقاله:

Biological synthesis and characterization of ZnO nanoparticles using a herbal extract

## محل انتشار:

دومین کنفرانس بین المللی توسعه پایدار، راهکارها و چالش ها با محوریت کشاورزی ، منابع طبیعی، محیط زیست و گردشگری (سال: 1394)

تعداد صفحات اصل مقاله: 9

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## خلاصه مقاله:

Metallic nanoparticles have received great attention from chemists, physicists, biologists and engineers who wish to use them for the development of a new generation of nano devices and also it is concerned because of a wide range of applications in biotechnological fields.Knowledge and use of herbal medicines dates back long history and has occurred in various populations. Herbal medicines make an enormous contribution to primary health care and have shown great potential against numerous ailments and the complex diseases of the modern world with fewer side effects. But there are problems which limit their widespread application.Nowadays nanoparticles are used for designing more effective drug delivery systems. There are some evidences in ancient literatures of Iranian and Indian that indicate this technique has been used in traditional medicines.In the present study ZnO nano-particles were synthesized from aqueous zinc nitrate through a simple and eco-friendly route using ethanolic extract of Vaccinium arctostaphylos, which acted as a reductant and stabilizer simultaneously and also it is a herbal drug with very intense antidabetic property. The bio-reduced zinc oxide nanoparticles were appropriately characterized.

## کلمات کلیدی:

Zinc oxid nanoparticles, Vaccinium arctostaphylos, biological synthesis, ethanolic extract