

عنوان مقاله:

Biological synthesis and Characterization of ZnS nanoparticles by aqueous crude extract of Stevia rebaudiana Bert

محل انتشار:

اولین کنفرانس ملی یافته های نوین زیست شناسی (سال: 1395)

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خلاصه مقاله:

The development of green synthesis route through biological method for the synthesis of nanoparticles using plants have received attention in the recent times. ZnS nanoparticles as a source of suppliers elemental zinc in hydroponic culture crops. ZnS nanoparticles have been synthesis using glucose aqueous crude extract of Stevia as agent stabilizer. sweet taste Stevia measured due of Different combinations glycoside. The active compounds are various steviol glycosides (mainly stevioside and rebaudioside), which have 250–300 times the sweetness of sugar. ZnS nanoparticles are studied by X-ray diffraction (XRD), Energy dispersive analysis of X-rays (EDAX), Scanning electron microscopy (SEM), Transmission electron microscopy (TEM) and Fourier Transform Infrared Spectroscopy (FTIR). SEM and TEM analysis shows that average size Zns nanoparticle ranged from 20 to 50 nm. EDAX pattern confirms the presence of Zinc and Sulfur. The peak at 1123.16 cm⁻¹ related to -C -O groups of glucose. The peaks at 3414.82 cm⁻¹ is very broad dedicated to the -OH groups from glucose therefore FTIR spectra confirm the presence of glucose as capping agent

کلمات کلیدی:

Biological synthesis, Stevia rebaudiana, ZnS, glycoside, glucose, FTIR

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