

## عنوان مقاله:

Bioreactor and Production of Plant Medicinal Compounds

## محل انتشار:

کنگره توسعه همکاری های علمی منطقه ای علوم صنایع غذایی و کشاورزی (سال: 1397)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

World growing population, increasing trend of consumption of natural compounds and consequently collection of the wild medicinal plants in unscientific methods have led to emergence of a big challenge for human being that is endangered wild species, and decline in plant biodiversity. Therefore, sustainable production of valuable compounds in vitro conditions is essential nowadays due to making least stress on natural resources. As in vitro methods are expensive, many researchers have reported that bioreactors as instrument for scaling up the production of plant derived medicinal compounds and then reducing the cost of products. Using bioreactor caused the higher production of desired compounds in a shorter time, lower labor costs, occupying less place and continuous production. This method of production is independent to the climatic changes and soil conditions that are influence on the yield and quality of metabolites. Recently, several types of bioreactors have been designed for different purposes of plant cell and organ cultures. There are many examples of plant-derived high value molecules produced in bioreactors such as Paclitaxel, Comptothecin, Rosmarinic acid, Verbascoside, Artemisinin and Galanthamin. This review summarizes the bioreactors types and configuration, advantages and limitations on plant biomass and bioactive compounds from cell suspension, organ, Shoot, Embryo, hairy and adventitious root cultures, and strategies for enhanced production of .plant secondary metabolites using bioreactors

## کلمات کلیدی:

Cell Suspension Culture, Medicinal Plants, Organ Culture, Secondary Metabolites

## لینک ثابت مقاله در پایگاه سیویلیکا:

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