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Stud. Y.B. Koksharova
Dir. A.A. Shchegolev
USFEU, Yekaterinburg

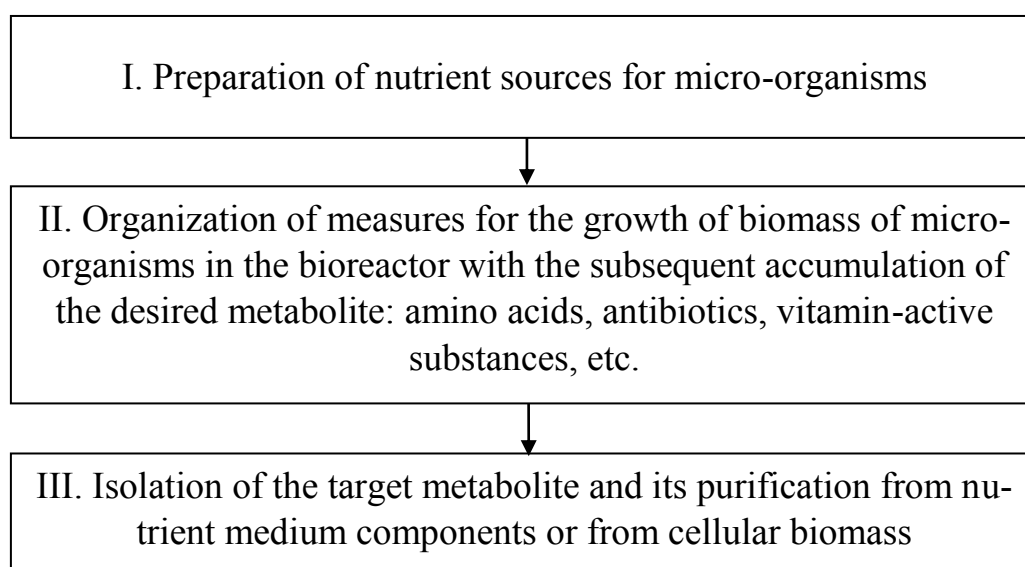
PROBLEMS AND PROSPECTS OF PHARMACEUTICAL INDUSTRY BIOTECHNOLOGIES

By the definition of most scientists, the 21st century will be the century of biotechnology. The urgent necessity for new technologies is facilitated by that improving environmental protection, contribution to the elimination of shortages of food and medicines.

The objects of biotechnology, in contrast to chemical technology, are living microorganisms, plant cells and components of living cell biomass.

A special role is given to pharmaceutical biotechnology, which solves medical problems by creating new therapeutic and preventive means, such as antibiotics, enzymes, vitamins, amino acids, drugs of the normal flora, and bioproducts on the basis of biomass of plant cells [1].

The main stages of pharmaceutical biotechnology are presented in the figure [2].



Main stages of pharmaceutical biotechnology

The modification of the composition of digestive enzymes of animal origin is one of the priority areas of researching in the field of pharmaceutical biotechnology.

Enzymes of animal origin include such groups of pancreatic enzymes, as amylases, peptidases and lipases. Amylases, peptidases and lipases break down complex carbohydrates, proteins and fats.

In our opinion, it is advisable to carry out the modification with lyophilic bioorganic complexes of plant origin, which contains phospholipids, sterols and caratinoids.

In this sense, carbon dioxide extracts of oilseed fruits of woody shrubs, sea buckthorn, viburnum and rose hips represent theoretical and practical interest.

Lipophilic components of carbon dioxide extracts are natural emulsifiers of fats and inhibitors of toxic radicals. They accelerate enzymatic hydrolysis of food proteins, fats, carbohydrates.

To ensure the effective metabolism of food is an important problem which is solved by the food and pharmaceutical biotechnology.

Bibliographic list

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Маг. А.П. Лежнева, К.А. Береснева
Рук. В.В. Юрченко, И.К. Гиндулин,
УГЛТУ, Екатеринбург

МЕТОДИКА ОПРЕДЕЛЕНИЯ ТЕРМОДИНАМИЧЕСКИХ ХАРАКТЕРИСТИК АДСОРБЦИИ ЙОДА ИЗ ВОДНЫХ РАСТВОРОВ АКТИВНЫМ УГЛЕМ В ДИНАМИЧЕСКИХ УСЛОВИЯХ

Углеродные нанопористые материалы используются в извлечении органических и хлорпроизводных соединений. При исследовании адсорбции этих веществ приходится сталкиваться с различными аналитическими трудностями. Известно, что адсорбция йода эквивалентна адсорбции органических и хлорпроизводных веществ. Поэтому в работе использовался