TOP 5 INNOVATIVE FACTORS

- Use of ultrasonic cavitation technologies
- Gentle modes and parameters of processing of vegetable raw materials
- Maximum extraction of biologically active substances
- Preservation of native properties of BAR of vegetable raw materials
- Improving the efficiency and profitability of production

PROBLEMS

- Deficiency of biologically active substances
- Low quality food
- Use of secondary raw materials
- Ecology security
- Food security

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ACOUSTICS

BY NATURE - THE BESTPRODUCT

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Production of high-quality and safe for the health of the population food, medicines, veterinary drugs, cosmetics, household chemicals, plant protection products and growth stimulants enriched with plant micronutrients

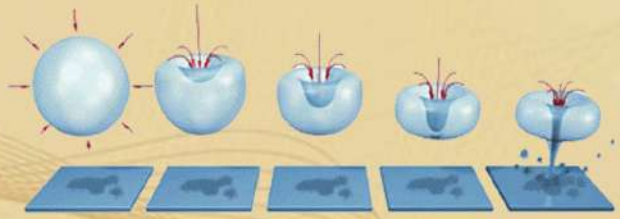
THE IDEA OF A STARTUP

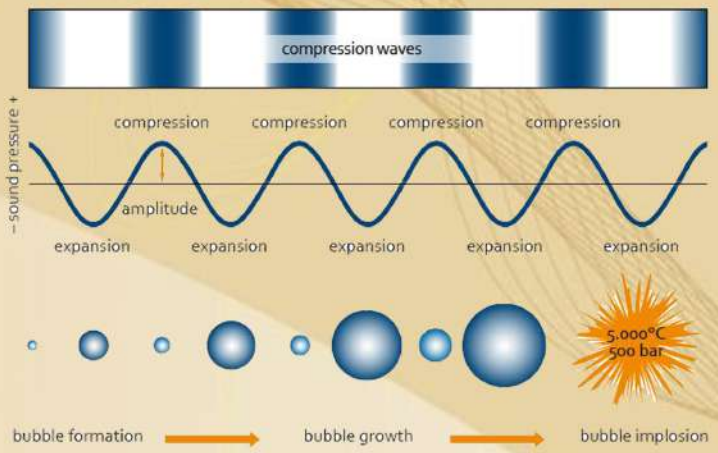
Production of quality products of processing industries according to modern requirements is based on the development of products enriched with natural biologically active substances.A valuable source of such substances is vegetable raw materials.

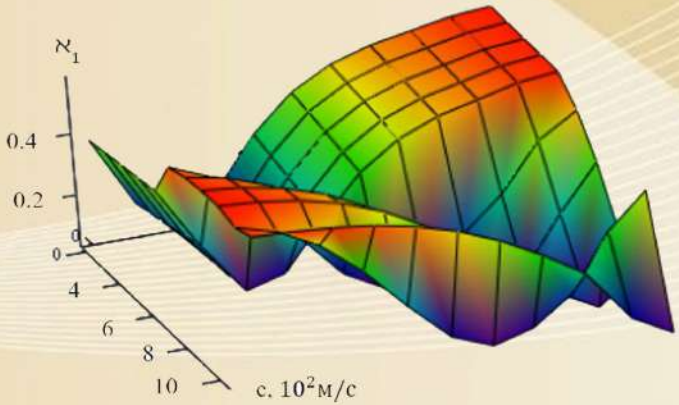
The defining stage of the technology of extraction of biologically active substances from plant raw materials is extraction. The use of ultrasonic cavitation technologies for the implementation of this process, in comparison with known physical methods, has a number of significant advantages due to a set of specific effects, such as cavitation, sound capillary effect, sound chemical reactions, acoustic currents, sound pressure, which have a complex effect. process. Selection of modes and parameters of ultrasonic processing provides purposeful extraction of target components from vegetable raw materials. The obtained extracts are a valuable source of physiologically functional ingredients that have therapeutic, tonic, antioxidant, immunomodulatory, radioprotective orientation.

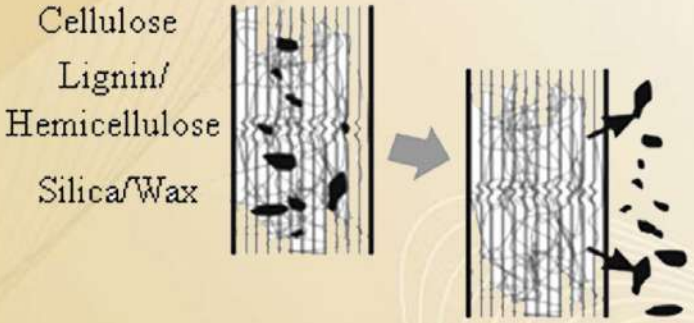
TECHNICAL CHARACTERISTICS

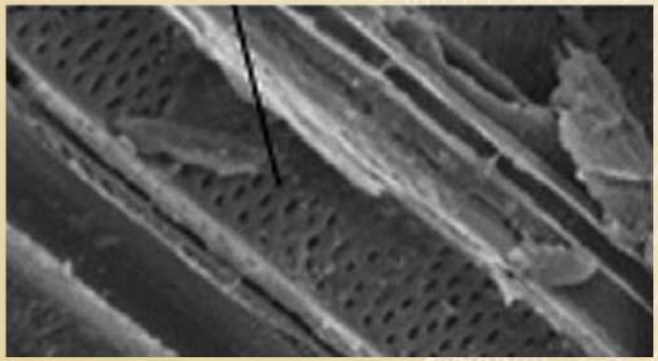
The mechanism of effective implementation of the ultrasonic cavitation extraction technology in the system of "raw material - extractant" consists in the influence of the energy field on the micro and macro levels by forming a directed flow of substances in the capillary, an intensive movement of the extractant around the particle and the medium layer, that is, the creation of conditions for convective mass transfer.

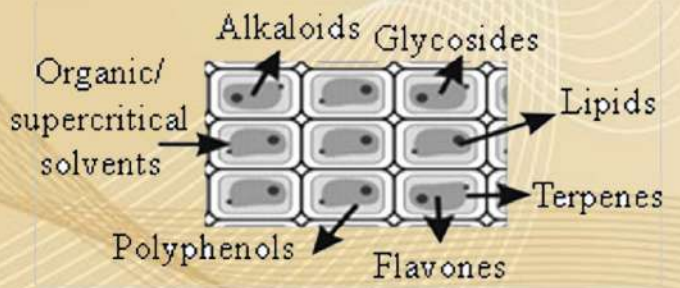












When applied to an external ultrasonic field, the structure of the raw material undergoes a power thermomechanical action, which greatly weakens the strength of their connection with other structures. As a result, there is a violation of the structure and destruction of the chemical bond between the components of the system, they are easily separated. Such separation promotes the production of chemically pure environments and is appropriate in the case of the removal of substances from plant material with complex structure, as there is no violation of the integrity of the structures of elementary fibers and intrinsic substances.