

LONG TERM ISOCHORIC FREEZING TO INHIBIT BIOLOGICAL CONTAMINANTS

Tech ID: 33152 / UC Case 2023-133-0

PATENT STATUS

Patent Pending

BRIEF DESCRIPTION

There are many applications in which there is the need for storage of matter prone to biological contamination for extended period, from days to years. These applications include food, agricultural products, biological matter, and biotechnological matter. Isobaric (constant pressure) freezing is one method of food preservation, however, freezing causes the deterioration of the quality of the preserved matter. High pressure processing followed by sterilization by refrigerating it at 4 °C is common, but microorganisms can grow at 4 °C and the product is sterile for limited periods of time of days. Thus, there is still a need for good preservation technologies that inhibits or reduce growth of microbial contaminants while maintaining their fresh-like characteristics and nutritional value.

UC Berkeley inventors and others have developed a device and methods for long term preservation of matter that inhibits or eliminates biological contaminants with isochoric freezing.

SUGGESTED USES

» food preservation

ADVANTAGES

» extends the availability of biological matter in the market and increase the use thereof.

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INVENTORS

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OTHER INFORMATION

CATEGORIZED AS

» **Agriculture & Animal Science**

» Processing and Packaging

» **Environment**

» Other

» **Materials & Chemicals**

» Storage

RELATED CASES

2023-133-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

► ISOCHORIC IMPREGNATION OF SOLID FOODS AT SUBFREEZING TEMPERATURES