

High Voltage Atmospheric Cold Plasma Used to Inactivate Microbes in Coconut Water

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Categories:

- Agriculture
- Food and Nutrition

Keywords:

- Agriculture
- Food and Nutrition
- Food Distribution
- Food Processing

As the food industry realizes the demand for more nutrient-rich food and beverages, processing intensifies to create supply for the consumer. To increase output, current sterilization techniques are being used on organic food. Food that has repetitively seen these methods lose their freshness and nutrients, which are necessary to market the food as organic. Most food goes through a process that reduces the level of harmful microbes in the food. This is usually done through heat treating as microbes are not able to survive in high heats. However, this method destroys the desired nutrients and decreases organic marketability.

Researchers at Purdue University have developed a process of preserving fruit juices. This process, which uses atmospheric cold plasma, maintains the freshness and nutrients in fruit juice that are generally lost during conventional processing. High voltage atmospheric cold plasma (HVACP) has previously been used to target the molecular makeup of organic material. During this newly developed process, HVACP targets microbes within tender coconut water and renders them inactive, creating a cleanly processed beverage. This method will maintain coconut water's freshness and nutrients longer than most other processed beverages.

Advantages:

- Ensures freshness
- Preservation of organic food

Potential Applications:

- Food storage
- Preservatives

People:

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Intellectual Property:

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