

Cream coffee, also known as Mochi, turned into delicious paste

Authors: Kyle Hamilton Tom Lyons Ernest Sanchez Sean Perez Aaron Vargas

Published Date: 10-23-2014

California Lutheran University

School of Chemistry

Cream coffee, also known as gruel, is a popular hot beverage in Japan. Unfortunately, coffee creamers cause many people an unpleasant burning sensation and are not worth the calories. This is what forced Professor Miyuki Ushijima to seek out a solution to this problem.

Professor Ushijima, at the Union Polytechnic Research Institute in Nagoya, took a hybrid of two naturally occurring materials (lactic acid and pectin) and attempted to modify them to cancel out each other, allowing caffeine to absorb in and block the acid in the product.

Mochi, a food-like food "semisan" or Japanese rice, is a food-like substance that has been pressed into very thin sheets and then cooked. Cheese is an example of a similar kind of thin movie. The resulting product is chewy, well-hydrated and tastes like the product of a slightly violent temper tantrum. This is the process of making "mochi".

The resulting substance has two parts: Pectin is an agent commonly found in cereal and cereal by-products. Mochi, with its various uses (cha ichi like sushi, omelets, hot and cold beverages) consists of a Pectin with the density of another type of Pectin.

Prof. Ushijima has been experimenting with various Pectin combinations in order to find the ideal mixture. Other Pectin is either genti or licorice and is used in various ways. Some are used as powder and are prepared through grinding or boiling. Mochi is roasted and contains a higher percolation (water absorption).

In his experiments, the professor has been able to achieve results that can safely substitute for the soft substance in many kinds of hot drinks (whitening cream cheese, containing hot pepper) and is also able to stabilize the bitterness of mochi. Prof. Ushijima said "It is very good to be able to take a bitter product (mochi) and add as a flavor enhancer and enjoy the desired results".

Because Prof. Ushijima is not a professional chemist and is experimenting on himself, making Pectin-Mochi might be a bit troublesome, he was yet to invent a method to facilitate production. However, his research can be used to make an easy way to add health-enhancing properties to existing existing products.

Prof. Ushijima has enough recipes to make several modifications to the Pectin-Mochi formula; in order to reproduce his tasty concoction at home, he just needs to spray his blender with a good amount of hot pepper (ideally sweet), followed by adding Mochi and a few drops of cream.



A Black And White Photo Of A Man In A Suit