

MOLECULAR GASTRONOMY TECHNIQUES. Workshops at " Villa de Abarán" Secondary school

STRAWBERRY JAM SPHERIFICATION FOR CHEESE CAKE

- ☐ First we prepare the dissolution of 1.25 grams of alginate in 125 grams of water.
- ☐ Mix well with the blender and let the mixture cool for an hour in the refrigerator.
- ☐ Then we mix with several tablespoons of strawberry jam and with the blender we try to get a homogeneous mixture.
- ☐ Previously we have checked the pH of strawberry jam with litmus paper. This must be greater than 3.5 to perform the spherification and clearly it is, pH approximately 6 to 7.

NOTE: As we see that the color is not very red we are going to add some natural red dye that is used in baking.

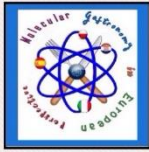
- ☐ On the other hand, we prepare a solution of 2 grams of calcium chloride in 250 ml of water. Stir with a teaspoon until completely dissolved. The calcium chloride will create a layer on the alginate with jam thus forming a perfect sphere.
- ☐ Next, we take with a syringe an amount of the alginate mixture with jam and very carefully proceed to drop that mixture as close to the surface of the chloride solution.
- ☐ Finally we collect the spheres and rinse them with water. And they are already available to put on top of the cheesecake.

CHEESE CAKE FOAM WITH SOYA LECITHIN

- ☐ We take about 250 g of milk and 2 grams of soy lecithin. Heat for 10 minutes to dissolve the lecithin.
- ☐ Then we take a portion of cheesecake and the previous solution to mix well with the blender.
When everything is mixed, in a wide bowl we will pour an amount to beat on the surface and thus generate that foam that we will pick up with a spoon as it comes out. It is important that the temperature of the solution to be beat is between 20 and 40 ° C.
- ☐ Lecithin helps to generate foam due to its lipid content, that is, by introducing air with mechanical movements it will be able to trap the air and keep it for longer.
- ☐ Another option is to add a natural blue dye that is used in baking to obtain a blue foam color.
- ☐ Then it will be placed in the cup presenting a portion of solid cheese cake in the bottom, the light blue foam in the next layer and the marmalade spheres on a peppermint leaf on the surface.

GELIFICATION OF BARLEY SOUP

- ☐ Mix 2 grams of agar-agar in 250 ml of barley soup broth
- ☐ Heat and stir until it starts to boil for about 10 minutes.
- ☐ Then we will put on some molds that we will introduce in the refrigerator for a few hours.

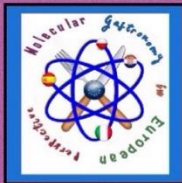


Foam workshop

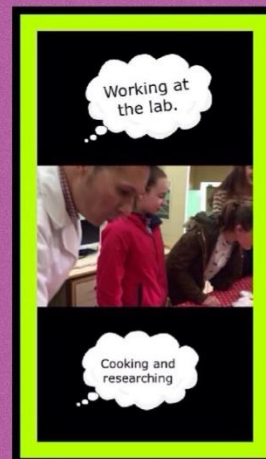


*Esferification, a new technique
to imitate a shape or texture*

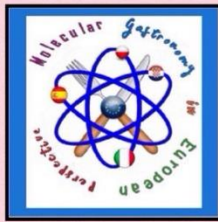
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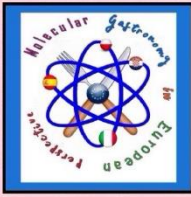
Liquid nitrogen workshop.



Freezing the ingredients of the Italian food with liquid nitrogen



Spherification workshop



Gelification, the process of turning a substance into a gelatinuous form



Spanish paella



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