

Recipes from the *Physics of Cooking*, lecture by David Weitz

Lactonnaise

Ingredients:

- 100 g milk
- 233 g olive oil + 200 g extra
- salt & black pepper

Procedure:

1. Add milk to the beaker.
2. Slowly add the olive oil. Wait until it floats to the top.
3. Lower the immersion blender all the way to the bottom of the beaker. Without moving it from the bottom, turn it on and off a couple of times so that a thicker texture is created. After this, start slowly moving the immersion blender up and down to homogenize the entire mixture.
4. Add about 100-200 ml of extra olive oil to turn the sauce into a solid.
5. Add salt and pepper to taste.

Serving ideas: asparagus, poached egg, or polenta (<http://christinaeats.tumblr.com/page/5>)
Could work as a dip for french fries. Try in potato salad, turkey sandwiches, or other places mayo is used.

-from the Alicia Foundation

2-minute mayonnaise

Ingredients:

- 1 egg yolk
- 1 T water
- 1 dollop of Dijon mustard
- juice from half a lemon
- 1 cup neutral oil

Procedure:

1. Add the egg yolk, water, mustard, and lemon into a beaker.
2. Slowly pour in oil, so that it floats to the top.
3. Blend into an emulsion, starting from the bottom, so that the oil is gradually incorporated.
4. Add extra oil, until the sauce becomes solid.

-from Kenji Alt, The Food Lab
www.serious-eats.com/2011/10/the-food-lab-home-made-mayo-in-2-minutes-or-le.html

30 second foam

Ingredients:

- Two pints heavy whipping cream
- One iSi Whip
- One N20 cartridge
- One bowl, pre-chilled
- One whisk

Procedure:

1. Fill the iSi Whip $\frac{1}{2}$ to $\frac{1}{3}$ full of heavy whipping cream.
2. Add 1 teaspoon of vanilla extract or other flavoring
3. Screw on the top.
4. Add N2O cartridge, then screw into place until seal is broken.
5. Turn upside down and shake for about 15-20 seconds.
6. Initially dispense into a large receptacle initially, in case the foam comes out too fast.
7. Serve.

Yogurt Sphere (reverse spherification)

Ingredients:

- 200 g x 2 = (7 oz) of plain yogurt
- 90 g x 2 = (3.2 oz) heavy cream
- 30 g x 2 = sugar (1 oz)
- 1500 g (35 oz) of water
- 7.5 g sodium alginate

Procedure:

1. Start by preparing the alginate bath. Mix the sodium alginate in the water using an immersion blender until the sodium alginate is completely dissolved. If this is your first time doing this, be aware that this may take longer than expected. Let it rest for 24 hours in the fridge so that the air that has entered the mixture disappears and the sodium alginate is completely rehydrated. To create the yogurt mixture just mix all the ingredients together.

2. You are now ready to start the spherification process! Remove the alginate bath from the fridge. Scoop the yogurt mixture with a half sphere 5ml measure spoon and carefully pour it into the

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alginate bath. It is important that the yogurt spheres don't touch since they would stick together.

3. Leave the yogurt spheres "cooking" for about 2 minutes in the alginate bath and then carefully remove them using a slotted spoon.

4. Rinse the spheres very gently with water and strain them carefully. Serve on a plate.

-from <http://www.molecularrecipes.com/spherification/spherical-yogurt-recipe/>

Juice Spheres (direct spherification)

Ingredients:

- 1 g sodium alginate (1 %)
- 0.5 g xanthan gum (0.5%)
- 100 g juice
- 8 to 10 g calcium chloride/lactate (8-10%)
- 100 g water

Procedure:

1. Blend sodium alginate, xanthan gum, and juice.
2. Blend calcium chloride/lactate and water.
3. Follow spherification procedure above

-from Khymos Hydrocolloid Recipe collection

Cocktails

Ingredients:

- Ice cubes in water bath
- Cocktail shaker
- Vodka or any clear spirit, room temperature
- Thermometer

Procedure:

1. Measure temperature of the ice bath, to show that it is 0 °C.
2. Measure the temperature of the alcohol, to show that it is closer to 20 °C.
3. Fill the shaker nearly half full of ice cubes.

4. Pour in about 60 ml of alcohol.

5. Shake for about 30 seconds. If using a cocktail shaker, instead of a Boston shaker, be sure to keep your hand on the top.

6. Pour into a cup and measure the final temperature, to show that it is below 0 °C.

Martini

Ingredients:

- 2 oz gin (6 cl, 1/2 gills)
- 1/4 oz dry vermouth (6 dashes, 1/16 gills)

Procedure:

Stir in mixing glass with ice & strain

Optional: Add olive or lemon twist. Serve in a cocktail glass (4.5 oz)

-from cocktaildb.com