

### Preparation of a fruity cocktail using the rotary evaporator

R-100, I-100, V-100, F-105

#### 1. Introduction

In this Short Note we present the preparation of an alcoholic drink with a rotary evaporator. This delicious drink includes campari, strawberries for a fruity flavor and ginger for a spicy aftertaste. The recipe is developed by Rolf Caviezel, best molecular chef in German-speaking Switzerland (Gourmet Journal).

#### 2. Recipe

Ingredients for 4 drinks:

- 100 g Strawberries
- 4 g Ginger (fresh)
- 0.5 g Mint
- 80 g Campari
- 90 g Water
- 1 Cup Ice cubes
- Little Peppermint

#### 3. Procedure

Cut the strawberries and ginger into small pieces and mix them with the other ingredients.

Put the mixture into a 1.5 L beaker flask.

Connect the beaker flask onto the rotary evaporator and set the parameters as shown below.



Figure 2: Beaker flask, easy to put in and take out ingredients due to its large opening.

#### Parameter of evaporation system

Rotation speed	Level 3 (ca. 150 rpm)
Heating bath temperature	55 °C
Cooling temperature	10 °C
Pressure	114 mbar
Flask	1.5 L beaker flask

Start the distillation.

If needed adjust the pressure (the optimum distillation rate is around 1 to 2 drops per second).

When the distillation is finished, take the whole residue out of the beaker flask and put it into a jug. Puree it with a blender.

Pour in the distillate and stir again.

Distribute the content into four cocktail glasses.

Finally add ice cubes and garnish the drinks with some peppermint.

Enjoy your drink!



Figure 2: Cocktail including campari, strawberry and ginger.

#### 4. Purpose of rotary evaporation

To be gentle with heat-sensitive ingredients, the solvent is removed under vacuum to lower its boiling point. Working at lower temperatures allows us to maintain the full essence of the strawberries and the ginger; therefore maximising the flavor of the cocktail.



Figure 3: Rotary evaporation system consisting of a Rotavapor® R-100 with feeding tube, an Interface I-100, a Vacuum Pump V-100 and a Recirculating Chiller F-105.

#### 5. Acknowledgement

Many thanks to Rolf Caviezel in Grenchen, Switzerland for sharing his recipe with us and for the interesting discussions.