## Let's Eat: Exploring food science

## Standard Laboratory Operating Procedure #1 Making Soy Milk Chocolate Bars

Laboratory: Biotechnology SLOP prepared by: R. Sanders/Z. Sanders Location: Science Lab Last Revision: 15 May 2017

Purpose: To examine sensory characteristics based on the chemical composition of foods.

Safety: Hot Gloves

## Materials

Beaker, 500mLEdible Cocoa Butter (fouBaker's Chocolate (100% Cacoa)Confectioner's SugarLarge SpoonVanilla Powder or VanillaSilicon Ice Cube MoldsHot PlateFlour SifterVanilla Soy Milk Powder (Soy Protein Isolate Powder) (found at Walmart)

Edible Cocoa Butter (found at WholeFoods) Confectioner's Sugar Vanilla Powder or Vanilla Bean (found at WholeFoods) Hot Plate

## Procedure

- 1. Weigh out 30g of cocoa butter chunks and place into a 1000mL beaker.
- 2. Weigh out 51g of powdered sugar and sift into a small bowl, then set aside.
- 3. Weigh out 23g of vanilla powdered soy milk (protein isolate) and sift into a separate small bowl.
- 4. Weigh out 0.95g of vanilla powder or scrape out 1 vanilla bean and set aside.
- Then melt the cocoa butter on low heat (approx. 100°C) using the hot plate, once cocoa butter is completely melted slowly add 23g of sifted powdered soy milk (protein isolate) stirring constantly to incorporate for 5 minutes.
- 6. After 5 minutes, add 26g of Baker's Chocolate pieces and stir until completely incorporated.
- 7. Then remove beaker from heat, add 51g of sifted confectioner's sugar, 0.95g of vanilla powder (or inside of 1 vanilla bean) and stir vigorously to incorporate all ingredients.
- 8. Once mixture is completely smooth, spoon the chocolate into silicon ice cube molds.
- 9. Place molds in freezer to set chocolate for 10 minutes, when chocolate has solidified then complete the taste test below.

| Sensory Characteristics |  |
|-------------------------|--|
| Appearance              |  |
| Texture                 |  |
| Smell                   |  |
| Flavor                  |  |

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