

No. 76

Let's Test Acidity of the Raindrop



Catching rain drops, testing raindrop pH and size.



Red sweet potato powder contains anthocyanin



Preparation



- Wheat flour (weak flour)
 - Red sweet potato powder
 - Plastic case with lid (about 10cm in diameter)
 - A tea strainer
- ※You can buy red sweet potato powder from the Internet.



✿Property of red sweet potato✿

- 1
- Mix 1/3 tablespoon red sweet potato powder and 200ml water. Stir very well.



- 2
- Divide the liquid in three different glasses. Observe changes in the color of the mixture when a lemon juice, water and konjac syrup is added. Red is acid, violet is neutral and green is alkaline. In this experiment the following was used: lemon liquid (acidity), water (neutral), konjac syrup (alkalinity).



✿Collecting Raindrops✿

1

•Mix wheat flour (two tablespoon) and red sweet potato powder (2/3 tablespoon) very well.



2

•Use tea strainer in transferring the mixed powder to the small container. The height of the powder should be at least 1cm from the bottom of the container.



3

•Slowly open the container on the rain. Catch raindrops for at least 10 seconds.



4

•Close the container, and shake it lightly.

5

•Go back to your room. Separate the grains of raindrops using tea strainer. Let it dry for 2 hours.



💡 Information

- 📌 Record the time you start and finish catching raindrops. Compare the raindrops color and sizes.
- 📌 That photo shows the raindrops collected every 5 minutes in Sapporo city Kita ward 2007.6.6. The rain starts at 10:30pm.
- 📌 Data of the Meteorological Agency recorded rain is 0.5mm from 10:30 to 10:40, 1mm from 10:40 to 10:50 and from 10:50 to 11:00.



- 📌 Rain that dropped in the wheat flour and red sweet potato powder mixture will form almost same size as the size of the raindrop because of the property of the flour.
- 📌 Red sweet potato powder contains red pigment anthocyanin. It has a property to change color from acid to liquid.
- 📌 The picture shows collected raindrops with a dropped (using syringe) of lemon and water.

