


Microscopy of Starch

Materials and Chemicals

Microscope	Water
Slides and cover slips	Lugol´s solution 
Scalpel	Potatoes
Pipette	Wheat flour
Spatula	Banana
Filter paper	Corn starch (Maizena)

Procedure:

You have to make 4 microscopic preparations and drawings of various starch grains. Use half of an A4 sheet for each drawing. For staining use a drop of Lugol`s solution!

- a) **Potato (*Solanum tuberosum*)**: Use the juice of a potato (cut apart); (400x)
- b) **Corn (*Zea mays*)**: A pinch of cornstarch; (400x)
- c) **Wheat (*Triticum aestivum*)**: A pinch of wheat flour; (400x)
- d) **Banana (*Musa x paradisiaca*)**: A little well-crushed pulp; (400x)

Observation: → Drawing

Disposal: Residual waste

Extracting Starch From Potatoes - ONE group only

Materials and Chemicals

2 potatoes	knife
Grater (Kartoffelreibe) and peeler	2 large beakers
Plate	Water
Spoon	Tea towel

Procedure:

Wash, peel and finely grate the potato. Put the mash in a beaker, add 500ml of water and stir well. Filter the mash (Brei) through a cloth into the second beaker and squeeze well. Let the turbid (trübe) filtrate stand for about 30 minutes. What observations can you make (photo for the protocol!)? Interpret the results of the experiment in your lab report!