



## PLASMOLYSIS 2

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### **Necessary materials and tools:**

Onion or red onion, microscope, slide, coverslip, filter paper, KCl or  $\text{KNO}_3$  concentrated solution.

### **Description of experiment:**

- a) Examine the skinless spathe of a red onion under microscope. Because of the anti-cyans the cell plasma is purple.
- b) Drop a solute KCl onto another piece of spathe.

### **Result:**

The cell plasma shrinks, plasmolysis occurs.

### **Explanation:**

The cellular membrane is a semi-permeable membrane which lets through micro-size water molecules but it does not let through the bigger-sized solute molecules and ions. As a result of this plasma shrinks and osmosis occurs.

During plasmolysis water flows from the cells into the more solute KCl solution because inside the cells the concentration of water is higher than outside the cells.

As a result of this the plasma shrinks.

**Plasmolysis is a form of osmosis.**

Only living cells are capable of plasmolysis.