

PRESSURE CHANGE DUE TO TEMPERATURE CHANGE

MED 16.04a



Material:

Item-no.	Qty.	Description
C3020-6D	1	Erlenmeyer flask glass, 250 ml, SB 29
C7320-4B	1	Stopper Silicone, 26/32/30 mm, 1 hole, for SB 29
C6100-2A	1	Syringe, 120ml, plastics
C7414-2C	1	Hot plate, small, 500 W

PRESSURE CHANGE DUE TO TEMPERATURE CHANGE

MED 16.04a

Purpose

Showing that the pressure of a gas increases with temperature and ascertaining the connection.

Preparation

- the taper at the tip of the syringe is removed
- the stopper is plugged onto the tip of the syringe
- insert the tip of the syringe completely
- insert the stopper with the syringe into the Erlenmeyer flask
- place the unit on the hot plate



Experiment

We switch on the hot plate and set the heating switch to the highest level.

Result

The air inside the Erlenmeyer flask is heated up. The increase in temperature of the gas causes an increase in pressure, which pushes the piston out of the syringe.



Attention!

The Erlenmeyer flask gets very hot!
Therefore use gloves when dismantling the experiment.

Let the flask cool down slowly after
switching off the heating plate.

Do not rinse with cold water when hot.