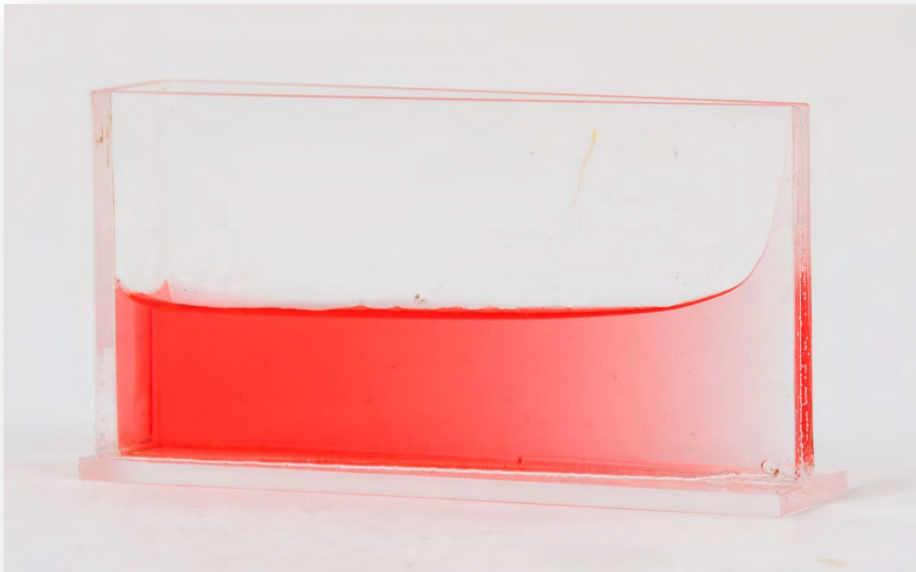


CAPILLARY ACTION – WEDGE-SHAPED TANK

MED 18.04



Material:

Item-no.	Qty.	Description
DM870-1K	1	Wedge shaped tank
P7050-1A	1	Powder dye, red
		Mercury

CAPILLARY ACTION – WEDGE-SHAPED TANK

MED 18.04

Purpose

Demonstrating the capillary effect and the different behaviour of liquids

Experiment 1

The wedge-shaped vessel is filled to the half with colored water.

We observe the behaviour of the water at the constriction of the vessel.



Result

The liquid is "pulled up" at the constriction of the vessel.

It seems as if the wall is "attracting" the liquid.

Water is therefore a wetting liquid.

Additional task

We add a few drops of detergent to the water. What is happening?

Experiment 2

The wedge-shaped vessel is filled to the half with mercury.

We observe the behaviour of the mercury on the constriction of the vessel.



Result

The liquid is "pushed down" at the constriction of the vessel.

It seems as if the wall is "repelling" the liquid.

Mercury is therefore a non-wetting liquid.

Note

The narrower the vessel the stronger the effect of the molecular forces between wall particles and liquid particles, between liquid and liquid particles and between liquid and air particles.