





Proper handling of parameters during measurements

1. Be sure, that there is no voltage applied to the capacitor plates.
2. Inject oil droplets into the capacitor chamber by pushing the respective button – only once or two times.
3. Turning on and off the voltage (button „U on / off“), if the applied voltage is sufficiently large, that one can move upward a selected, well visible oil droplet. If this droplet moves upward, one must empirically decide, if this droplet is not moving too fast to guarantee a time measurement.

If one can not identify an upward moving oil droplet, than the applied voltage has to be enlarged. First, one should choose another value for the voltage in the drop-down menu and confirm this new value by pushing the button “apply voltage”.

If you have found a suited droplet with this respect, than continue with step 4; otherwise start again with step 1.

4. If necessary, push button  or  to move the scale such that the droplet is centred; by pushing button  or  you can focus this droplet.
5. Determine the time interval of an upward as well as of a downward motion, which the oil droplet needs to pass a fixed distance.

Tip:

- The longer the distance during rising or falling, the more accurate one can determine the respective velocities.
- Count the number of steps of the scale the oil droplet is passing; this procedure allows the time measurements at the turning points.

To determine the upward and downward velocity as accurate as possible, it is necessary to repeat step 5 as often as possible before the oil droplet disappears. Do not forget to write down the applied voltage.

6. Before starting a new series of measurements push button „realign optics“ to move the microscope back into its initial position.