

PHYS 102 Experiment 2. The Millikan Oil-Drop Experiment

Preliminary Work:

Visit the site <https://www.britannica.com/science/Millikan-oil-drop-experiment> to learn the procedure, and some historical and theoretical background on the experiment.

Online Experiment Link:

<https://ophysics.com/>

Procedure:

1. Open the website given under the “Online Experiment Link”. From the top menu choose the menu item “E&M”, and from the appearing dropdown menu choose the experiment “The Millikan Oil-Drop Experiment”.
2. Read the description given at the bottom of the page.
3. Follow the procedure written in the description and complete the table below. ($g=9.8\text{ m/s}^2$.)

Particle	v_t (m/s)	$m=k v_t^2$ (kg)	mg (N)	Voltage (V)	$E=V/d$ (V/m)	q (C)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

4. Study the charge values found for each particle and look for a pattern in the distribution.
5. Write a properly formatted report of your results, convert it into a PDF file and upload it to MOODLE. Deadline for submission is Monday, 20 July 2020 at 07:59 (am). Late submissions will result in deduction of 10 points for each day late.