



Gymnázium Jiřího Wolkerova, Prostějov

Laboratory task – physics – report

2.2 Hydrostatic pressure

Name:	Class:
Date:	Evaluation:
Cooperated:	

TASK.

Use the pressure sensor to determine quantitative relationship of hydrostatic pressure and the depth in an aquarium with water. Measure the relationship of hydrostatic pressure in various depths in water and ethanol.

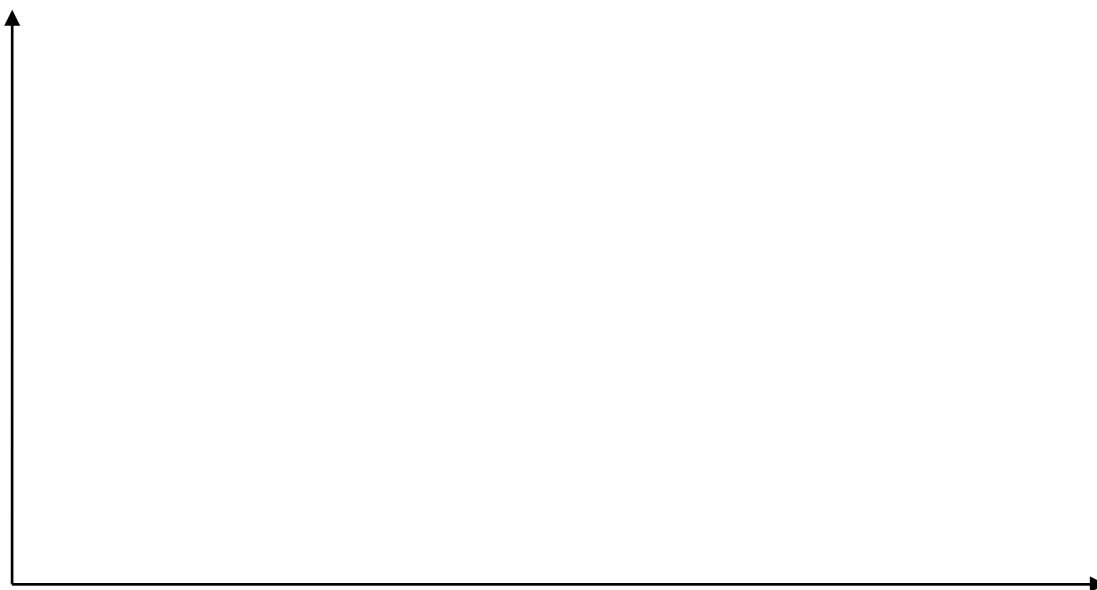
MEASUREMENT:

A) Determination of quantitative relationship between hydrostatic pressure and the depth in an aquarium with water

1) Graph of the total pressure (hydrostatic + atmospheric) against time during the submerging, moving and taking out of the pressure hose inside the aquarium



2) Graph of the hydrostatic pressure against time during the submerging, moving and taking out of the pressure hose inside the aquarium



CONCLUSION

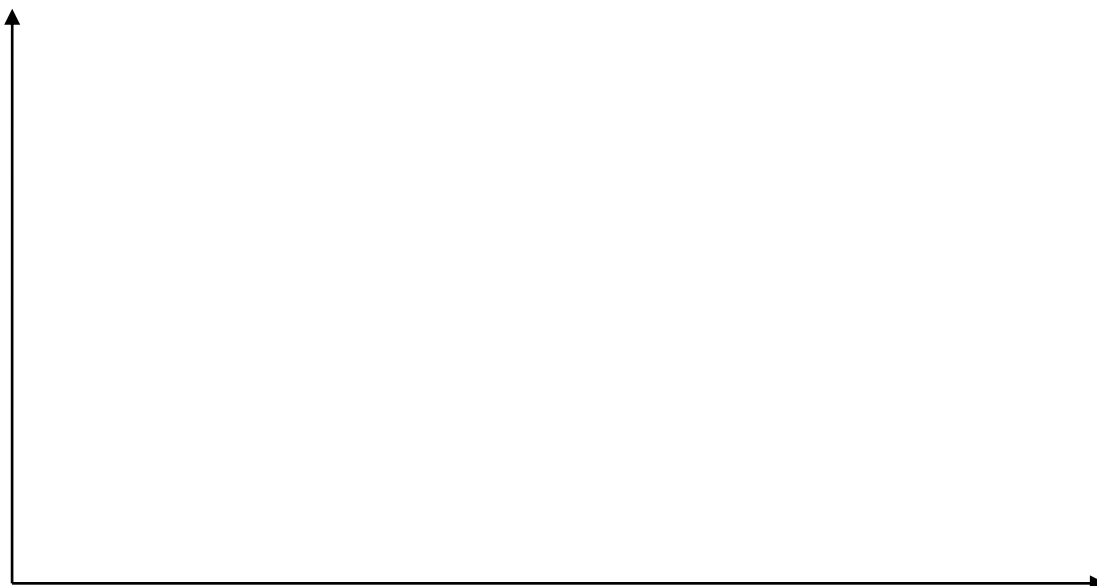
Sum up the measurements, draw a conclusion.

B) Measurement of the hydrostatic pressure in various depths in water and spirit

1) Hydrostatic pressure – depth graph (in water and spirit)



2) Hydrostatic pressure – depth graph (in water and spirit) – inset of a line through the use of Fitting



- 3) Data chart with measured and calculated values of hydrostatic pressure in water and spirit.

	WATER		SPIRIT	
$\frac{h}{\text{cm}}$	Measured $\frac{p_h}{\text{kPa}}$	Calculation $\frac{p_h}{\text{kPa}}$	Measured $\frac{p_h}{\text{kPa}}$	Calculation $\frac{p_h}{\text{kPa}}$

CONCLUSION