



St. Lawrence High School
A Jesuit Christian Minority Institution
Work Sheet – 2
Subject – Physical Science



Class – X

Date – 10.04.20

Chapter – Thermal Phenomena

Topic – Expansion of liquid

Choose the correct option for the following questions.

1 × 15 = 15

- The C.G.S unit of coefficient of volume expansion of gas is –
a. J/K b. $cm/^\circ C$ c. $^\circ C$ d. $^\circ C^{-1}$
- The SI unit of real expansion coefficient of liquid is –
a. K^{-1} b. K c. $^\circ C$ d. $^\circ C^{-1}$
- The apparent expansion coefficient of liquid is –
a. Always greater than real expansion coefficient. b. Always less than real expansion coefficient.
c. Always equal to real expansion coefficient d. Always lesser than expansion coefficient of container
- If $\gamma_a =$ Apparent expansion coefficient of liquid, $\gamma_r =$ Real expansion coefficient of liquid and $\gamma_c =$ volume expansion coefficient of the container, then $\gamma_a =$
a. $\gamma_r - \gamma_c$ b. $\gamma_r + \gamma_c$ c. $\gamma_c - \gamma_r$ d. $\frac{\gamma_r \times \gamma_c}{\gamma_r + \gamma_c}$
- In case of liquid the change of volume depends on –
a. Initial volume b. change of temperature. c. nature of liquid d. All of these
- A liquid can have
a. All three types of expansion coefficients b. only superficial expansion coefficient
c. only volume expansion coefficient d. only linear expansion coefficient
- Real expansion coefficient will be –
a. Always greater than apparent expansion coefficient b. always lesser than apparent expansion coefficient
b. Always equal to apparent expansion coefficient d. equal to expansion coefficient of container
- The expansion coefficients of different liquids are different because –
a. different liquids possess different intermolecular force of attraction
b. different liquids have different initial volume
c. different liquids have different free surface areas
d. none of these
- The real expansion coefficient of liquid depends on –
a. Initial volume b. change of volume c. change of temperature d. nature of liquid
- Apparent expansion of liquid depends on –
a. Expansion coefficient of container b. initial volume of liquid
c. change in temperature d. all of these

11. γ_a depends on –
- a. Initial volume b. nature of the liquid c. γ_c d. both b. and c
12. $\gamma_c =$
- a. $\gamma_r + \gamma_a$ b. $\gamma_r - \gamma_a$ c. $\gamma_a - \gamma_r$ d. none of these
13. Expansion of container =
- a. Real expansion of liquid – apparent expansion of liquid
b. Real expansion of liquid + apparent expansion of liquid
c. Apparent expansion of liquid – Real expansion of liquid
d. None of these.
14. Apparent expansion of a particular liquid will be –
- a. Different in different container
b. Same in all types of container
c. Same in all type of container made up of same material but of different volume.
d. None of these.
15. Given, real expansion coefficient of petrol is $0.001/^\circ\text{C}$. What could be the possible value of γ_a for petrol?
- a. $0.0015/^\circ\text{C}$ b. $0.01/^\circ\text{C}$ c. $0.00099/^\circ\text{C}$ d. $1 \times 10^{-3}/^\circ\text{C}$

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