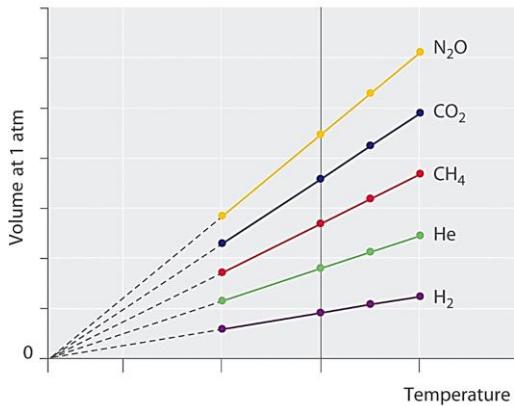


- 13 A student takes some measurements to plot graphs of volume versus temperature for different amounts of selected gases at 1 atm pressure, as shown in diagram below. He observed that all the plots extrapolate to the same point  $T_0$  on the temperature-axis, regardless of the type or the amount of the gas.



Which of the following rows are correct regarding  $T_0$ ?

	<b>value of <math>T_0</math></b>	<b>nature of <math>T_0</math></b>
A	- 273.16 °C	It is the temperature at which water exists in all of its three states.
B	- 273.15 °C	It is the temperature at which no more heat can be removed from a system.
C	0 °C	It is the melting point of ice.
D	273.16 K	It is the temperature at which the particles in a substance becomes motionless.