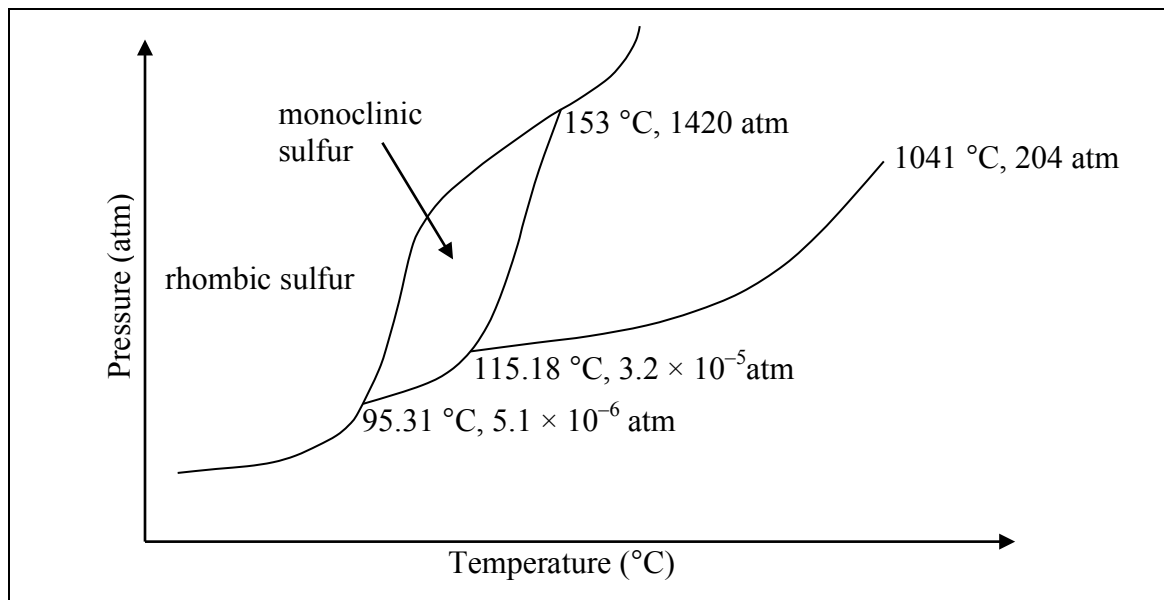


- Solid sulfur can exist in two forms, rhombic sulfur and monoclinic sulfur. A portion of the phase diagram for sulfur is reproduced schematically below. The pressure and temperature axes are not drawn to scale.

Complete the diagram by adding the labels “vapour” and “liquid” to the appropriate regions.



Which form of solid sulfur is stable at 25 °C and 1 atm?

Describe what happens when sulfur at 25 °C is slowly heated to 200 °C at a constant pressure of 1 atm.

How many triple points are there in the phase diagram?

What phases are in equilibrium at the triple points?

Which solid form of sulfur is more dense? Explain your reasoning.