Marks • The diagram below shows a simplified phase diagram of helium. 6 100 Solid Liquid He-I 10 Pressure /10⁵ Pa Critical point 1 Liquid He-II Gas (superfluid) 0.1 Triple point 0.01 2¦ 2.17 4 ¦ 4.22 5 5.20 1 3 (T_c) (T_b) Temperature /K Describe two unusual properties of helium (other than the "superfluid" He-II phase) that are not shared by most substances. Is it possible to liquefy helium above 5.20 K? Explain your answer. Why is the liquefaction of He very difficult, even at low temperatures?