



FIG. 1.4 Abrupt change in boiling behavior of liquid helium at the superfluid lambda-point transition (2.177 K). As normal He I is cooled by evaporation with a vacuum pump, it boils with small bubbles while in its normal state. As its temperature passes through the lambda point, liquid helium suddenly and briefly boils violently, schematically illustrated by (a) and (b), and then suddenly stops boiling completely (c). No boiling occurs below the transition point, even though the superfluid continues to be pumped, evaporated, and cooled.