

Question	Marking Guidance	Mark	Comments
2(a)	Standard pressure (100 kPa) (and a stated temperature)	1	Allow standard conditions. Do not allow standard states Allow any temperature Allow 1 bar but not 1atm Apply list principle if extra wrong conditions given Penalise reference to concentrations
2(b)	<u>Hydrogen bonds</u> between water molecules <u>Energy</u> must be supplied in order <u>to break</u> (or loosen) them	1 1	Allow M2 if intermolecular forces mentioned Otherwise cannot score M2 CE = 0/2 if covalent or ionic bonds broken
2(c)	$T = \Delta H / \Delta S$ $= (6.03 \times 1000) / 22.1$ $= 273 \text{ K}$	1 1 1	Allow 272 to 273; units K must be given Allow 0°C if units given 0.273 (with or without units) scores 1/3 only Must score M2 in order to score M3 Negative temperature can score M1 only
2(d)	The heat given out escapes	1	

2(e)	(Red end of white) <u>light</u> (in visible spectrum) <u>absorbed</u> by ice Blue light / observed light is reflected / transmitted / left	1 1	Allow complementary colour to blue absorbed Penalise emission of blue light
------	---	--------	--