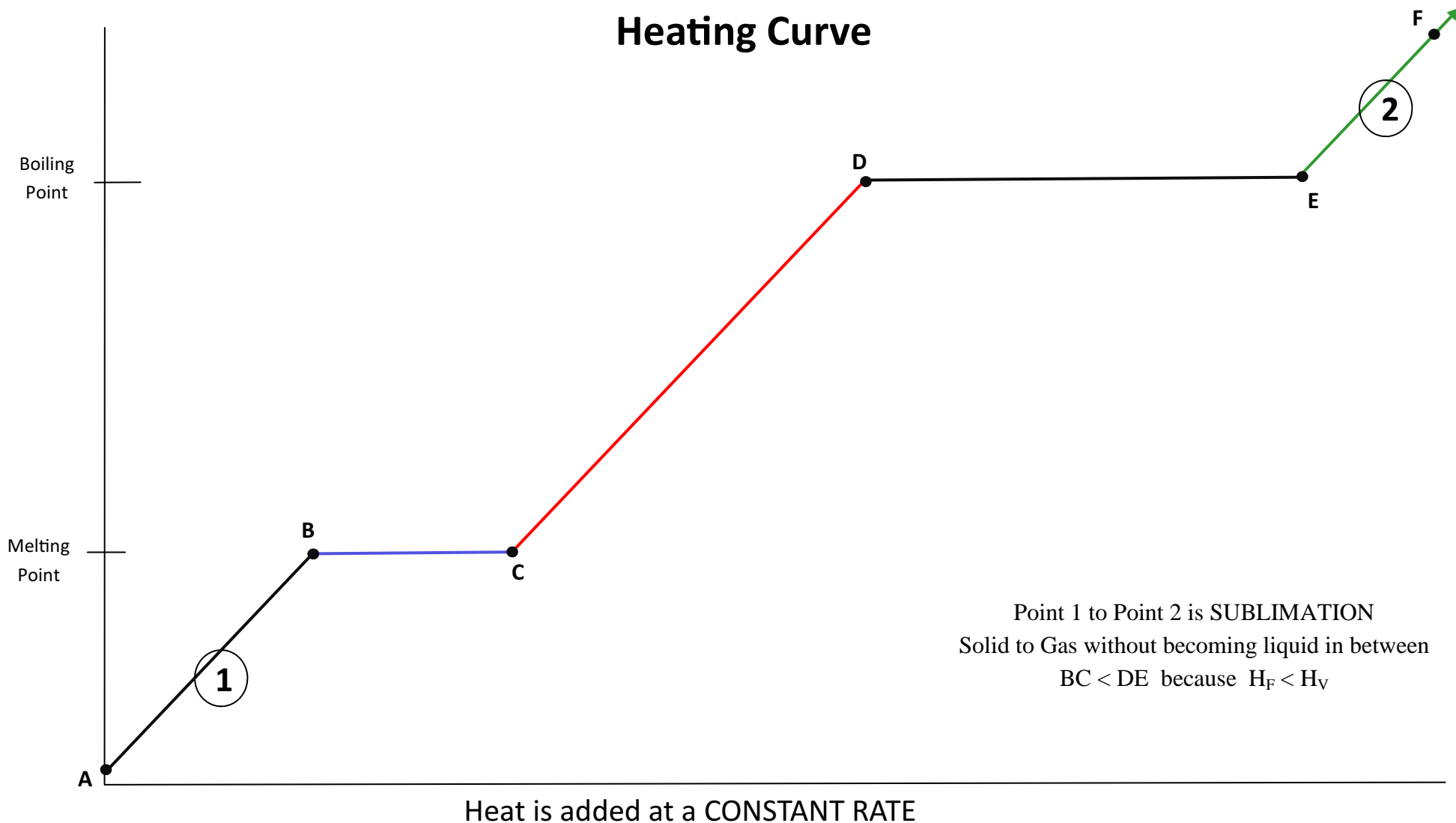


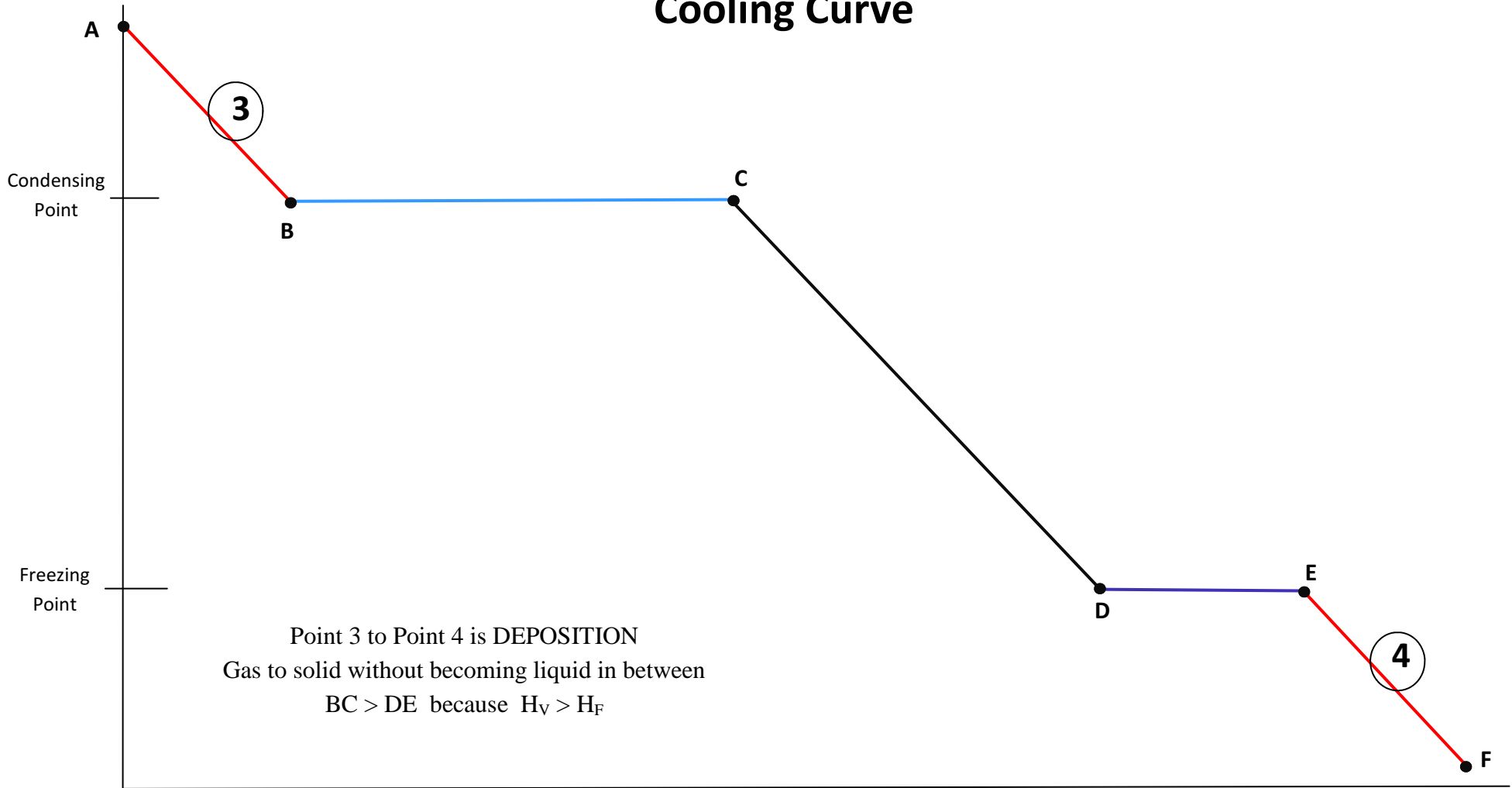
Heating Curve



Point 1 to Point 2 is SUBLIMATION
 Solid to Gas without becoming liquid in between
 $BC < DE$ because $H_F < H_V$

Segment	KE	Temp	PE	What's Happening	Formula and Constant
AB	KE↑	TEMP↑	PE↔	solid is warming up	
BC	KE↔	TEMP↔	PE↑	melting: solid → liquid	$q = mH_F$ $H_F = 334 \text{ J/g}$
CD	KE↑	TEMP↑	PE↔	liquid warming up	$q = mC\Delta T$ $C = 4.18 \text{ J/g}\cdot\text{K}$
DE	KE↔	TEMP↔	PE↑	vaporizing: liquid → gas	$q = mH_V$ $H_V = 2260 \text{ J/g}$
EF	KE↑	TEMP↑	PE↔	gas warming up	

Cooling Curve



Heat is removed at a CONSTANT RATE

Segment	KE	Temp	PE	What's Happening	Formula and Constant
AB	KE↓	TEMP↓	PE↔	gas is cooling down	
BC	KE↔	TEMP	PE↓	condensing: gas → liquid	$q = mH_V$ $H_V = 2260 \text{ J/g}$
CD	KE↓	TEMP↓	PE↔	liquid cooling down	$q = mC\Delta T$ $C = 4.18 \text{ J/g}\cdot\text{K}$
DE	KE↔	TEMP	PE↓	freezing: liquid → solid	$q = mH_F$ $H_F = 334 \text{ J/g}$
EF	KE↓	TEMP↓	PE↔	solid cooling down	