

تنبأ بإشارة الإنتروبي للنظام في التغيرات الفيزيائية و الكيميائية التالية

1.	$2\text{KClO}_3(\text{s}) \rightarrow 2\text{KCl}(\text{s}) + 3\text{O}_2(\text{g})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
2.	$\text{H}_2\text{O}(\text{l}) \rightarrow \text{H}_2\text{O}(\text{s})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
3.	$\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightarrow 2\text{NH}_3(\text{g})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
4.	$\text{NaCl}(\text{s}) \rightarrow \text{Na}^+(\text{aq}) + \text{Cl}^-(\text{aq})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
5.	$\text{KCl}(\text{s}) \rightarrow \text{KCl}(\text{l})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
6.	$\text{CO}_2(\text{s}) \rightarrow \text{CO}_2(\text{g})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
7.	$\text{H}^+(\text{aq}) + \text{C}_2\text{H}_3\text{O}_2^-(\text{aq}) \rightarrow \text{HC}_2\text{H}_3\text{O}_2(\text{l})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
8.	$\text{C}(\text{s}) + \text{O}_2(\text{g}) \rightarrow \text{CO}_2(\text{g})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
9.	$\text{H}_2(\text{g}) + \text{Cl}_2(\text{g}) \rightarrow 2\text{HCl}(\text{g})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
10.	$\text{Ag}^+(\text{aq}) + \text{Cl}^-(\text{aq}) \rightarrow \text{AgCl}(\text{s})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
11.	$2\text{N}_2\text{O}_5(\text{g}) \rightarrow 4\text{NO}_2(\text{g}) + \text{O}_2(\text{g})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
12.	$2\text{Al}(\text{s}) + 3\text{I}_2 \rightarrow 2\text{AlI}_3$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
13.	$\text{H}^+(\text{aq}) + \text{OH}^-(\text{aq}) \rightarrow \text{H}_2\text{O}(\text{l})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
14.	$2\text{NO}(\text{g}) \rightarrow \text{N}_2(\text{g}) + \text{O}_2(\text{g})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$
15.	$\text{H}_2\text{O}(\text{g}) \rightarrow \text{H}_2\text{O}(\text{l})$	$\Delta S > 0$	$\Delta S = 0$	$\Delta S < 0$