



# RELATIVE RATES

The graph below shows how the volume of carbon dioxide produced varies against time during reaction 1, which is a reaction between calcium carbonate and hydrochloric acid. Sketch and label similar curves for reactions 2-7. In each reaction, the calcium carbonate is in excess.

	Size of pieces of CaCO <sub>3</sub>	[HCl] (mol dm <sup>-3</sup> )	Volume HCl (cm <sup>3</sup> )	Temperature (°C)
1	small	2	100	20
2	large	2	100	20
3	large	2	50	20
4	small	4	50	20
5	large	1	100	20
6	small	2	200	40
7	powder	2	200	40

