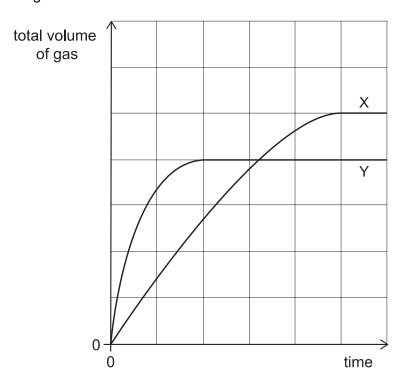
14 The decomposition of hydrogen peroxide in the presence of a manganese(IV) oxide catalyst produces water and oxygen gas.

$$2H_2O_2(aq) \rightarrow 2H_2O(I) + O_2(g)$$

0.2 g of manganese(IV) oxide granules are added to  $50\,\mathrm{cm^3}$  of 0.1 mol dm<sup>-3</sup> hydrogen peroxide at 20 °C. The volume of gas collected is shown on the graph as curve X.

A second experiment is carried out at  $20\,^{\circ}\text{C}$  using the same mass of manganese(IV) oxide. The volume of gas collected is shown as curve Y.



Which of the following conditions could result in curve Y?

	manganese(IV) oxide particle size	volume of hydrogen peroxide / cm <sup>3</sup>	concentration of hydrogen peroxide / mol dm <sup>-3</sup>
Α	powder	20	0.2
В	powder	25	0.2
С	powder	50	0.1
D	granules	20	0.1
Е	granules	25	0.2