

30 Which row gives the symbol equation for the formation of carbon monoxide and for the reduction of iron(III) oxide in a blast furnace?

| | equation for the formation of carbon monoxide | equation for the reduction of iron(III) oxide |
|----------|---|--|
| A | $2\text{C} + \text{O}_2 \rightarrow 2\text{CO}$ | $\text{FeO} + \text{CO} \rightarrow \text{Fe} + \text{CO}_2$ |
| B | $\text{CO}_2 + \text{C} \rightarrow 2\text{CO}$ | $\text{FeO} + \text{CO} \rightarrow \text{Fe} + \text{CO}_2$ |
| C | $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$ | $\text{Fe}_2\text{O}_3 + 3\text{CO} \rightarrow 2\text{Fe} + 3\text{CO}_2$ |
| D | $\text{CO}_2 + \text{C} \rightarrow 2\text{CO}$ | $\text{Fe}_2\text{O}_3 + 3\text{CO} \rightarrow 2\text{Fe} + 3\text{CO}_2$ |