

29 The fumes from the exhausts of petrol-burning cars contain the following pollutants.

- 1 unburnt hydrocarbons
- 2 nitrogen dioxide
- 3 carbon monoxide

Which pollutants are removed by oxidation in a catalytic converter?

- A** 1, 2 and 3 **B** 1 and 2 only **C** 1 and 3 only **D** 2 and 3 only

25 Two hydrocarbons, $\text{CH}_3\text{CHC}(\text{CH}_3)\text{CH}_3$ and $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3$, react separately with chlorine in the presence of ultraviolet light.

In each reaction, free-radical substitution occurs.

Which row is correct?

	identity of the hydrocarbon that can also undergo electrophilic addition	a termination stage of the free-radical substitution of the saturated hydrocarbon
A	$\text{CH}_3\text{CHC}(\text{CH}_3)\text{CH}_3$	$\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2\cdot + \text{Cl}\cdot \rightarrow \text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{Cl}$
B	$\text{CH}_3\text{CHC}(\text{CH}_3)\text{CH}_3$	$\text{CH}_3\text{CHC}(\text{CH}_3)\text{CH}_2\cdot + \text{Cl}\cdot \rightarrow \text{CH}_3\text{CHC}(\text{CH}_3)\text{CH}_2\text{Cl}$
C	$\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3$	$\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2\cdot + \text{Cl}\cdot \rightarrow \text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{Cl}$
D	$\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3$	$\text{CH}_3\text{CHC}(\text{CH}_3)\text{CH}_2\cdot + \text{Cl}\cdot \rightarrow \text{CH}_2\text{CHC}(\text{CH}_3)\text{CH}_2\text{Cl}$