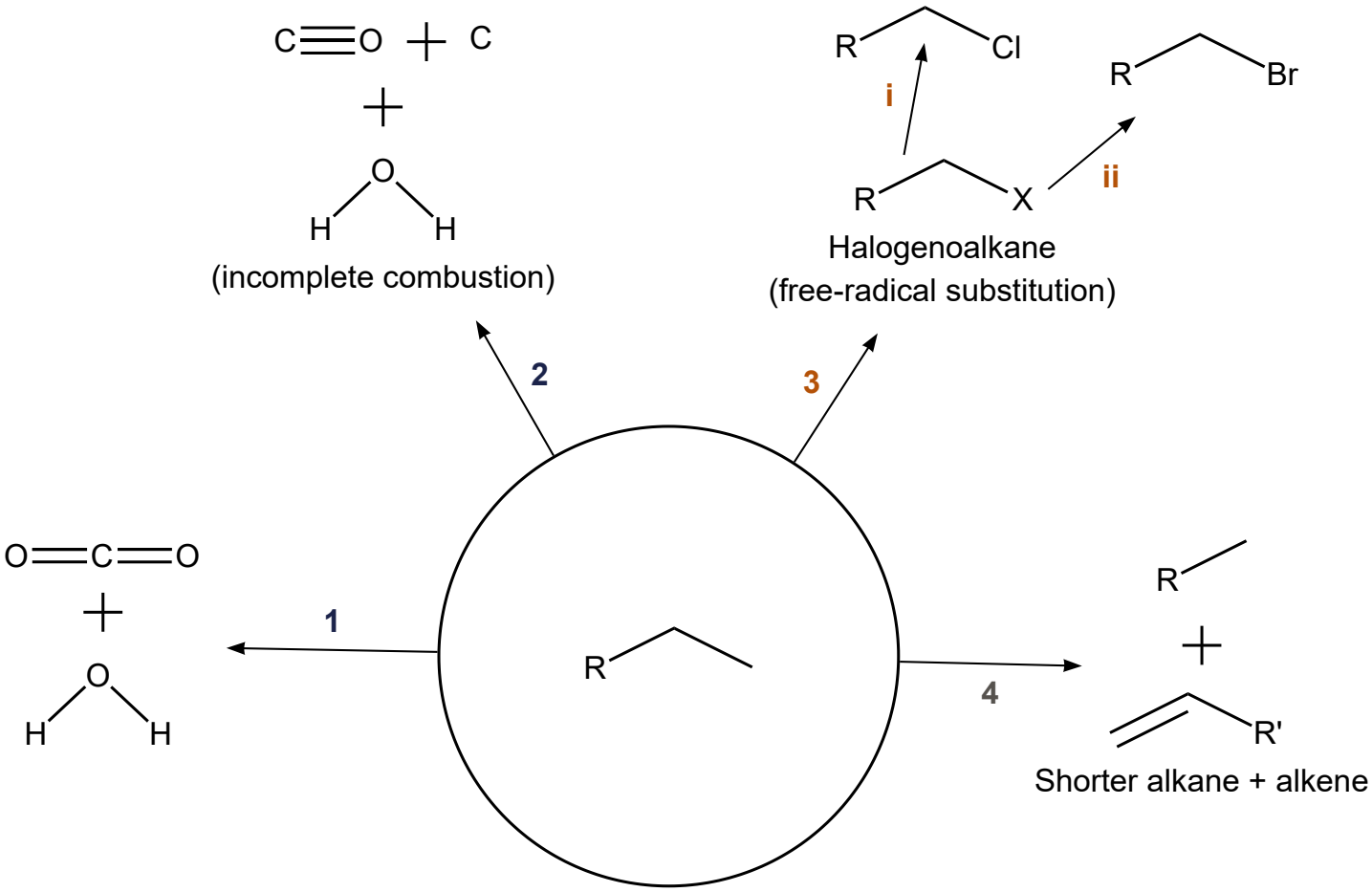
Alkanes Map

Cambridge International AS & A Level Chemistry · Topic 14 Hydrocarbons



1 combustion: excess O_2(g), burn (complete combustion)

2 combustion (incomplete): limited O_2(g), burn; CO is toxic

3 substitution (free-radical): ultraviolet light (e.g. ethane)
i Cl_2
ii Br_2

4 cracking: longer-chain alkane, heat with Al_2O_3

Alkanes are unreactive: strong C–H bonds of low polarity.
Catalytic converters remove CO, NOx and unburnt hydrocarbons.

combustion **substitution** **cracking**

Online Learning System · onlinelearningsystem.net · © 2026 Online Learning System. All rights reserved. Not for redistribution.