branching chain reaction

A chain reaction which includes a propagation step or steps in which there is an increase in the number of active intermediates; for example,

$$H + O_2 \longrightarrow OH + O$$

is a branching reaction since one active intermediate (H) gives rise to two (OH and O).

Source:

PAC, 1981, 53, 753 (Symbolism and terminology in chemical kinetics (Provisional)) on page 762