α-elimination

1. A transformation of the general type:

$$\begin{array}{c}
\text{R}_{1}Z_{1}X_{1} \\
\text{R'}_{1} \rightarrow \\
\text{R}_{2}Z_{2} + \text{X} \rightarrow \text{Y} \\
\text{R'}_{2}
\end{array}$$

(or X + Y, or X\(^+\) + Y\(^-\))

where the central atom Z is commonly carbon. The reverse reaction is called α-addition.

**Source:**
PAC, 1994, 66, 1077 (Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994)) on page 1088

2. (in photochemistry) General term applied to a reaction by which a group attached to the alpha carbon of an excited chromophore is expelled either as an odd electron species or as an ionic species.

**Note:**
This reaction should be distinguished from an alpha-(α)-cleavage.

**Source:**
PAC, 2007, 79, 293 (Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)) on page 302