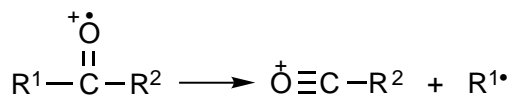


α -cleavage (alpha-cleavage)

1. (in mass spectrometry)

The fission of a bond originating at an atom which is adjacent to one assumed to bear the charge; the definition of β -, γ -, cleavage then follows automatically. The process:



would thus be described as α -fission of a ketone with expulsion of a radical $\text{R}^{1\cdot}$. The carbon atoms of the radical $\text{R}^{1\cdot}$ are called the α -, β -, γ -, carbons, starting with the atom nearest the functional group.

1991, 63, 1558

2. (in photochemistry)

Homolytic cleavage of a bond connecting an atom or group to a specified group. Often applied to a bond connected to a carbonyl group, in which case it is called a *Norrish type I photoreaction*. This reaction should be distinguished from an *alpha- (α)-expulsion*.

1996, 68, 2228