## acyl species

Also contains definitions of: acyl anions, acyl cations, acyl radicals, acylium ions

Acyl intermediates include acyl anions, acyl radicals and acyl cations (synonym acylium ions) which are formally derived from oxoacids  $R_k E(=O)_l(OH)_m$  ( $l \neq 0$ ) by removal of a hydroxyl cation  $HO^+$ , a hydroxyl radical  $HO^-$  or a hydroxyl anion  $HO^-$ , respectively, and replacement analogues of such intermediates. Acyl anions, radicals and cations can formally be represented by canonical forms having a negative charge, an unpaired electron or a positive charge on the acid-generating element of the oxoacid. Acyl anions. E.g.



Acyl radicals. E.g.

Acyl cations. E.g.

$$\begin{array}{c} O \\ \parallel \\ C \end{array} \longrightarrow R - C \equiv O^{\dagger}$$

See also: acyl groups

## Source:

PAC, 1995, 67, 1307 (Glossary of class names of organic compounds and reactivity intermediates based on structure (IUPAC Recommendations 1995)) on page 1312 PAC, 1993, 65, 1357 (Revised nomenclature for radicals, ions, radical ions and related species (IUPAC Recommendations 1993)) on page 1357