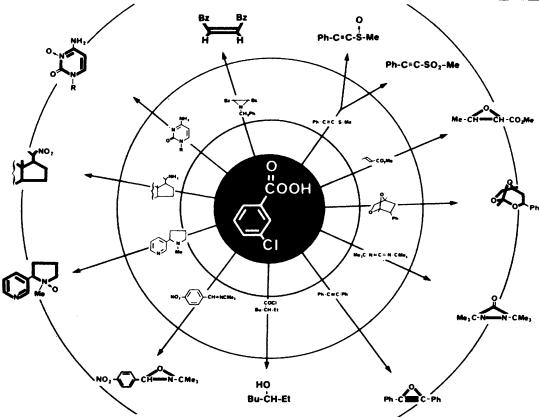
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m-CPBA is an excellent reagent for the Baeyer-Villiger oxidation of ketones to esters, such as acetylcyclanes and acetophenones. Related to this reaction is the conversion of acid chlorides to alcohols in which -OH replaces -COC1. For example, 3-heptanol was obtained in 73% overall yield from 2-ethylhexanoyl chloride.

Primary amines can be converted to **nitroalkanes**, and the yields decrease in the order *tert*-alkyl > sec-alkyl > n-alkyl.

Secondary amines give nitroxide radicals, whereas tertiary amines afford the N-oxides. Hence, nicotine is converted to the N'-oxide and to the N,N'-dioxide by I and 2 equivalents of m-CPBA, respectively. Among the nucleic acid bases, nucleosides, and nucleotides, only the cytosine and adenine series can be oxidized to N-oxides. Uracil, thymine, and guanosine and their derivatives gave ring-cleavage products. N-substituted aziridines are presumably oxidized to the corresponding N-oxides. This reaction is successfully used in the stereospecific deamination of N-alkylaziridines to olefins.

Sulfides can be selectively oxidized to sulfoxides or sulfones in excellent yields, even in the presence of amine functions, or carbon-carbon double and triple bonds. Some diaziridinones have been prepared from carbodiimides, and some ortho esters from ketals.

Space does not allow us to list the numerous references portraying the uses of m-chloroperoxybenzoic acid. Please write for a detailed data sheet.

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