Oxidation of alcohols

$$R \xrightarrow{1- \begin{bmatrix} 1 & 2- 1+ & [O] \\ -C & OH \end{bmatrix}} R \xrightarrow{1+ & O^{2-}} R \xrightarrow{1+ & O^{2-}} R \xrightarrow{1+ & O} R \xrightarrow{2- \begin{bmatrix} 1+ & O\\ -C & OH \end{bmatrix}} R \xrightarrow{1+ & O^{2-}} R \xrightarrow{1+ & O^$$

[O] = oxidizing agent dichromate
$$Cr_2O_7^{2-}$$
 Cr^{3+} permanganate MnO_4^{-}

weak oxidizing agent PCC 1° alcohol → aldehyde

oxidation = loss of e⁻ density from C 1. binding O 2. removing H