

Fenton reaction

$\text{Fe}^{2+} + \text{H}_2\text{O}_2 \rightarrow \text{Fe}^{3+} + \text{OH}\cdot + \text{OH}^-$. This is the iron-salt-dependent decomposition of dihydrogen peroxide, generating the highly reactive hydroxyl radical, possibly *via* an oxoiron(IV) intermediate. Addition of a reducing agent, such as ascorbate, leads to a cycle which increases the damage to biological molecules.

See also: Haber-Weiss reaction

Source:

PAC, 1997, 69, 1251 (*Glossary of terms used in bioinorganic chemistry (IUPAC Recommendations 1997)*) on page 1274