

Abstract

A process for the enzymatic regeneration of the redox cofactors NAD^+/NADH and $\text{NADP}^+/\text{NADPH}$ in a one-pot reaction, wherein, as a result of at least two further enzymatically catalyzed redox reactions proceeding in the same reaction batch (product-forming reactions), one of the two redox cofactors accumulates in its reduced form and, respectively, the other one in its oxidized form, characterized in that a) in the regeneration reaction which reconverts the reduced cofactor into its original oxidized form, oxygen or a compound of general formula $\text{R}_1\text{C}(\text{O})\text{COOH}$ is reduced, and b) in the regeneration reaction which reconverts the oxidized cofactor into its original reduced form, a compound of general formula $\text{R}_2\text{CH}(\text{OH})\text{R}_3$ is oxidized and wherein R_1 , R_2 and R_3 in the compounds have different meanings.

(Fig. 1)