# Nitro radical anion formation from nitro?substituted amphetamine derivatives

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The cyclic voltammetric characteristics of two nitroamphetamine derivatives (2?nitro?4,5?dimethoxyamphetamine and 2?nitro?4,5?methylenedioxyamphetamine) have been investigated in different media. In mixed media (aqueous buffer and DMF, dioxane, or acetonitrile) a reversible one?electron reduction takes place to form a stable nitro radical anion. At more negative potential values, a further three?electron reduction occurs irreversibly to give the hydroxylamine derivative. Cyclic voltammetry (CV) has been employed to study the tendency of the nitro radical anions to undergo further chemical reactions. The subsequent chemical reaction corresponds to a second?order process, a dismutation reaction electrochemically initiated. Data about rate constants and half?life times in mixed media are reported. 