

Journal of Catalysis

A laccase-catalysed synthesis of triaminated cyclohexa-2,4-dienones from catechol

Kevin W. Wellington, Varsha P. Govindjee, Paul Steenkamp

Abstract

A commercial laccase, Suberase₁ from Novozymes, catalyses the synthesis of triaminated cyclohexa-2,4-dienones and a methylbenzene-1,2-diol derivative. The primary amine (aniline) and the catechol was reacted under mild conditions (40 °C) in a reaction vessel open to air in the presence of Suberase₁ and a co-solvent (DMF) at pH 6.0. This reaction was also conducted using an environmentally friendly cosolvent (EtOH). Triamination is favoured over diamination and monoamination.