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An Eco-Friendly Protocol for the Synthesis of Anilines from Nitroarenes Catalyzed by Zinc and Ammonium Acetate in Aqueous Media

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ABSTRACT

A green methodology for the reduction of substituted nitroarenes to corresponding anilines using ammonium acetate as hydrogen donor and inexpensive commercial zinc dust as catalyst in aqueous media at ambient temperature and pressure is reported. In the Present system, compounds bearing other reducible functional groups like -OH, -CH_3, -OCH_3, -COOH, -$COCH_3$, -$CONH_2$ and halogens are unaltered. This protocol offers several advantages such as excellent yield, simple procedure, easy work-up and eco-friendly reaction conditions.

Keywords: Nitroarenes; zinc; ammonium acetate; anilines; aqueous media.