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An alternative process of reduction of di-imines

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The reduction of imines compounds to obtain the corresponding amines represents one of the transformations most widely used and valued functional group in organic synthesis chemistry. Because of their chemical nature as nucleophiles or bases, the amines are important precursors to compounds with structural diversity, which are of great interest in pharmaceutical and agricultural industries. The reduction of di-imines to become mainly for a method widely used that involves the use of sodium borohydride in dissolution with solvents polar protics as ethanol or methanol, or solvents polar aprotic as Tetrahydrofurane. At present, every organic reactions of interest have been revised making use of methodologies solvent–free. The methodologies are very attractive because those minimize the generation of pollutants to the environment, avoiding a negative impact of the chemistry on the environment. For this reason, in our search of synthesis of hexahydropyrimidines heterocycles systems joined to make contributions of strategies of synthesis that help to the care of planet, and at the same time keep providing knowledge to basic chemistry of the heterocycles compounds. Thus, the goal of this research is to provide an alternative process for the reduction of diimines, synthetized from 1,2 – ethylendiamine, 1,3 – propilendiamine and 1,3 – diamino – 2 – hydroxypropane using of $NaBH_4$ given in high to excellent isolated yields under solvent free conditions.

Biography

Augusto Rivera is a Magister in Chemistry and now he is doing his PhD at Universidad Nacional de Colombia. His research is in hexahydropyrimidine compounds, directed by Dr. Jaime Ríos Motta, who has fifteen years of experience in the lab research Síntesis de Heterociclos directed by him with thirty year of expertise.

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