

Thus, the *trans*-isomer of 2,3-dihydrofuran was obtained as the only product. Fully optimized structures of *trans* and *cis* dihydrofurans were obtained by B3LYP/6-31G(d,p) method (See supporting information).

4. Conclusion

We have developed a straightforward method to synthesis of *trans*-2,3-dihydrofuran in good to excellent yields in the presence of CuO nanoparticle as a reusable, green and efficient catalyst. Fully optimized structures of *trans* and *cis* dihydrofurans were obtained by B3LYP/6-31G(d,p) method. The advantages of this method are the use of an efficient catalyst, reusability of the catalyst, the use of low amount of the catalyst, diastereoselective synthesis, environmentally benign and easy separation of products.

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