
# A Mild and Rapid Synthesis of 2-aryl Benzimidazoles by using $SO_4^{2-}/ZrO_2$-$TiO_2$ as a Heterogeneous Catalyst



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Herein, we have reported an efficient synthesis of 2-aryl benzimidazoles by reacting ophenylenediamines and substituting aromatic aldehydes using $SO_4^{2-}/ZrO_2$-$TiO_2$ as a heterogeneous catalyst. This methodology is straightforward to obtain 2-aryl benzimidazoles with good to excellent yields. It has been performed in ethanol as a green solvent. The reported protocol has some advantages such as a safe and reusable heterogeneous catalyst, without any need for column chromatography to obtain desired products. The catalyst can be recovered for up to five catalytic cycles without significant loss in the catalytic activity.

**Keywords:** 2-Aryl benzimidazoles; SO42−/ZrO2-TiO2; benign GERD; cyclocondensation; heterogeneous catalyst; recyclable

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