

## عنوان مقاله:

Tandem Synthesis of ۲,۳,۴,۵-Tetrasubstituted Pyrroles from Aromatic Aldehydes Using Diethylene Glycol-bis(۳-methylimidazolium) Dihydroxide as an Efficient Catalyst

# محل انتشار:

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#### خلاصه مقاله:

A sequential process strategy was introduced for the synthesis of ۲,۳,۴,۵-tetrasubstituted pyrroles by the formation of benzoin from the corresponding aromatic aldehyde and followed by condensation reaction with 1,۳-dicarbonyl compounds and ammonium acetate in the presence of diethylene glycol-bis(۳-methylimidazolium) dihydroxide as catalyst in refluxing ethanol. The recycled catalyst could be reused four times without appreciable loss in the catalytic .activity

## كلمات كليدي:

Ionic Liquids, Pyrroles, Sequential process synthesis, Aromatic aldehydes, Catalyst

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