

## عنوان مقاله:

Ultrasound-promoted Catalyst-free Synthesis of  $\alpha$ -Aminonitriles in 1-Butyl-3-methylimidazolium Bromide ([Bmim]Br) as a Reusable Neutral Ionic Liquid

## محل انتشار:

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## خلاصه مقاله:

A catalyst-free one-pot three component methodology for the synthesis of  $\alpha$ -aminonitriles under ultrasonic irradiation at room temperature using [Bmim]Br as a neutral reaction medium is described. A broad range of substrates including the aromatic, heteroaromatic and aliphatic aldehydes were condensed with amines (aliphatic and aromatic) and trimethylsilyl cyanide (TMSCN). Using this method, all reactions were completed in short times and the products were obtained in good to excellent yields. The reaction medium could be recycled and reused several times without any loss of efficiency.

## کلمات کلیدی:

$\alpha$ -Aminonitrile, 1-Butyl-3-methylimidazolium bromide, Catalyst-free synthesis, Ultrasound-promoted synthesis, Ionic Liquid, Green chemistry

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