メチル (メタ) アクリレートの 化学選択的エステル交換反応に有効な嵩高い マグネシウム(II) 及びジナトリウム(I) ビスフェノキシド触媒

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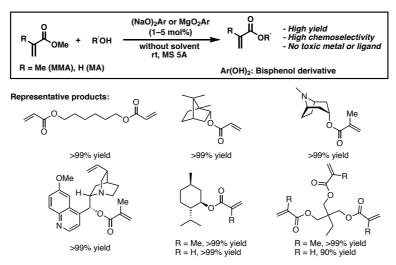
Bulky magnesium(II) and sodium(I) bisphenoxide catalysts for chemoselective transesterification of methyl (meth)acrylates (*Graduate School of Engineering, Nagoya Univ.*)

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Under our project on catalytic transesterification of unsaturated esters, we developed a sterically bulky magnesium and sodium bisphenoxides which were highly active catalysts for the chemoselective transesterification of methyl methacrylate (MMA) and methyl acrylate (MA) with various alcohols at room temperature. Successful transesterification with primary alcohols, secondary alcohols, diols, triols, and tetraols could be demonstrated. These catalysts were more active than the corresponding metal 2,6-di(*tert*-butyl)-4-methylphenoxides which were developed by us, and were easily prepared from inexpensive chemicals. Overall, this efficient transesterification technology would be attractive for practical industrial process chemistry.

Keywords: Magnesium Bisphenoxide Catalyst; Transesterification; Methyl methacrylate (MMA); Methyl Acrylate (MA); Sodium Bisphenoxide Catalyst

不飽和カルボン酸エステルの効率的合成法の開発を目指し、我々は、室温下、嵩高いマグネシウムビスフェノキシドおよびナトリウムビスフェノキシド触媒を用いるメタクリル酸メチルおよびアクリル酸メチルの化学選択的エステル交換反応を開発した。本触媒は様々な官能基を有するアルコールやポリオールのエステル化に有効であった。本触媒は以前我々が開発した2,6-ジ(tert-ブチル)-4-メチルフェノキシドリよりも活性が高く、安価な原料から調製できるため、工業的な応用が期待される。



1) J. Q. Ng, H. Arima, T. Mochizuki, K. Toh, K. Matsui, M. Ratanasak, J. Hasegawa, M. Hatano, K. Ishihara *ACS Catal.* **2021**, *11*, 199–207.