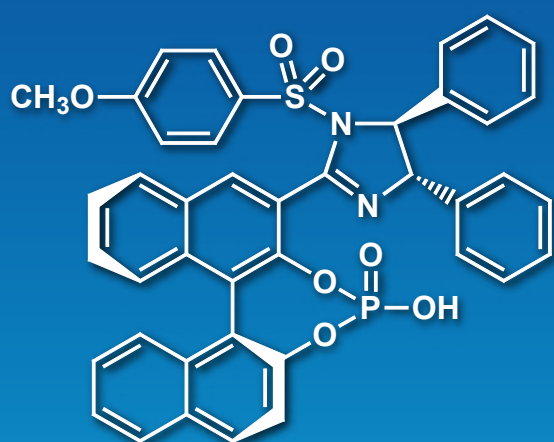


# Chiral Phosphoric Acid Catalyst for the Enantioselective Desymmetrization of Aziridines

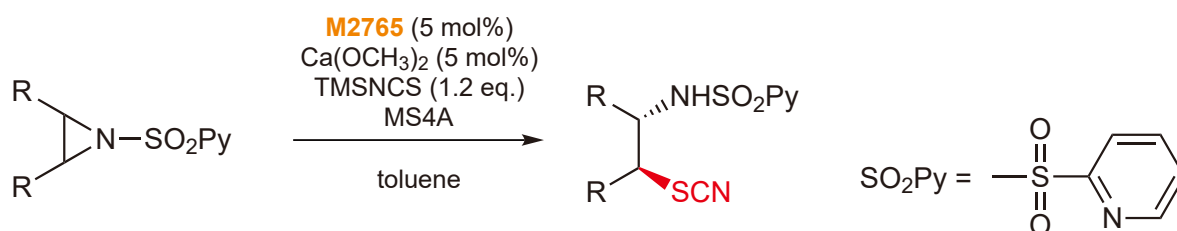


## Advantages

- Effective Catalyst for the Enantioselective Desymmetrization of meso-Aziridines.
- Formed Products Can Be Converted to Optically Active  $\beta$ -Amino Acids or Taurine Derivatives.

(*S*)-3-[1-(4-Methoxybenzenesulfonyl)-  
(*4S,5S*)-4,5-diphenyl-4,5-dihydro-1*H*-imidazol-2-yl]-  
1,1'-binaphthalene-2,2'-diyl Hydrogen Phosphate  
50mg  
[M2765]

## Application



Substrate	Yield (%)	er	Substrate	Yield (%)	er
	99	96 : 4		52	82 : 18
	99	94 : 6		99	91 : 9

**Reference** S. Nakamura, M. Ohara, M. Koyari, M. Hayashi, K. Hyodo, N. R. Nabisaheb, Y. Funahashi, *Org. Lett.* **2014**, *16*, 4452.  
DOI: <https://doi.org/10.1021/ol501990t>

# Chiral Phosphoric Acid Catalyst for the Enantioselective Desymmetrization of Aziridines

## Introduction of the Researcher

Group of Synthetic Organic  
Chemistry

## Nakamura laboratory

Nagoya Institute of Technology  
Graduate School of Engineering  
Department of Life Science and  
Applied Chemistry  
Frontier Research Institute for  
Material Science



## content of the research

Many examples showing different actions between enantiomers in biology have been reported. Therefore, in recent organic chemistry, a most important issue is to establish the methodology to synthesize pure enantiomers such as pharmaceuticals and agricultural chemicals effectively. From this perspective, Nakamura's laboratory has been working on the development of methodology of a new asymmetric synthesis as a main subject. Especially by developing new catalysts, they have succeeded in synthesizing the compounds that were hard to synthesize by conventional methods.

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