



TECHNOLOGY

Efficient Aziridination of Olefins

OVERVIEW

Aziridination is a powerful approach for the synthetic incorporation of nitrogen into a molecular architecture from an olefin precursor. Largely regarded for their synthetic versatility, aziridines are well suited for ring opening with an assortment of nucleophiles to yield functional amines.

A researcher in the Department of Chemistry and Biochemistry at the University of Maryland has developed an extremely efficient, catalytic approach with catalyst loadings as low as 0.01 mol % that makes use of a common, inexpensive nitrogen source (p-toluenesulfonamide) for aziridination of olefins. The use of the catalyst for the aziridination of olefins is unprecedented and represents a novel application of the [dirhodium(II)] carboxamidate class of catalysts. This protocol leads to aziridine products in moderate to excellent yields (60-95%) that retain the stereochemistry of the olefin precursor while simultaneously facilitating the mass production of the aziridines.

For additional information please contact the Office of Technology Commercialization, University of Maryland. Phone: 301-405-3947. Email: otc@umd.edu

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Additional Information

INSTITUTION

University of Maryland, College Park

PATENT STATUS

Patent(s) pending

LICENSE STATUS

Contact OTC for licensing information

CATEGORIES

- Chemical

EXTERNAL RESOURCES

- [US Patent 7,662,969](#)

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