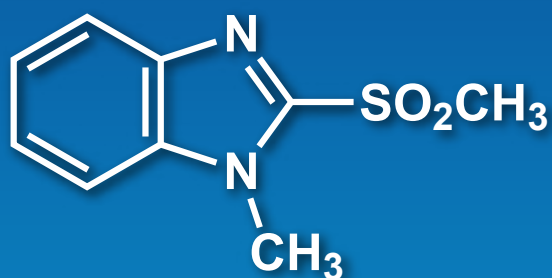


Julia-Type Methylenation Reagent Usable for Ketones and Aldehydes under Mild Conditions

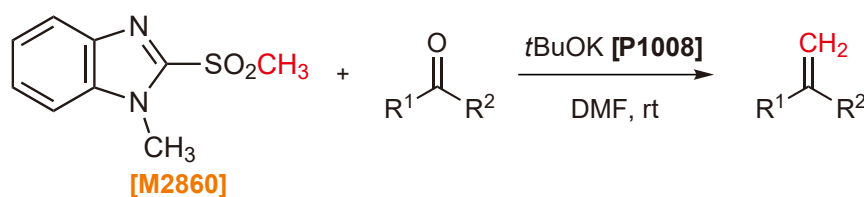


[M2860]

Advantages

- Effective for the Methylenation of Various Ketones and Aldehydes
- High Reactivity at Room Temperature
- Easy to Remove Byproducts by Extraction

Applications



Product	Yield (%)	Product	Yield (%)
	92		93
	96		97
	99		91

K. Ando, T. Kobayashi, N. Uchida, *Org. Lett.* **2015**, *17*, 2554.

1-Methyl-2-(methylsulfonyl)benzimidazole

1g / 5g [M2860]

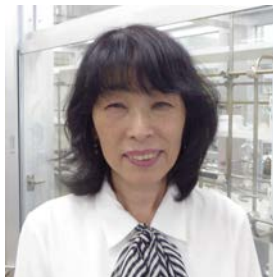
Related Reagent

Potassium *tert*-Butoxide

25g / 100g / 500g [P1008]

Julia-Type Methylenation Reagent Usable for Ketones and Aldehydes under Mild Conditions

Introduction of the Researcher



Professor **Kaori Ando**

Ando Lab

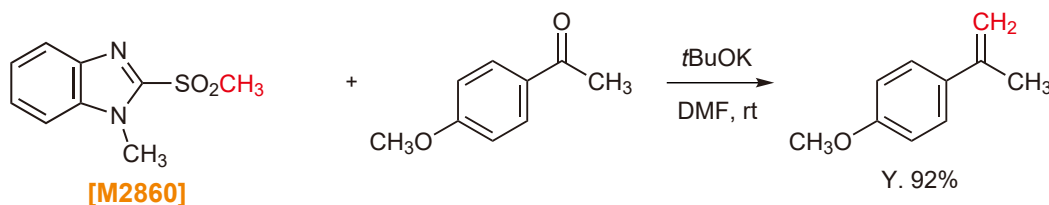
Department of Chemistry and Biomolecular Science
Faculty of Engineering, Gifu University



content of the research

Ando's Laboratory has been working on the development of methodology of stereoselective synthesis of alkenes. By developing $(\text{ArO})_2\text{P}(\text{O})\text{CH}_2\text{CO}_2\text{Et}$, her group made it possible to synthesize *cis*- α,β -unsaturated esters selectively, which were hard to obtain by conventional methods. (These reagents are available at TCI). Her method can be applied to the synthesis of *cis*- α,β -unsaturated amides and nitriles as well. Since this method cannot be applied for stereoselective synthesis of alkenes, they are currently working on the development of a new methodology using the Peterson reaction and the Julia-Kocienski reaction.

Experimental Procedure



To a solution of **M2860** (0.076 g, 0.36 mmol) and *p*-methoxyacetophenone (0.045 g, 0.30 mmol) in DMF (1.5 mL) under argon is added *tert*-BuOK (0.101 g, 0.90 mmol) at room temperature. After stirring for 1 h, the reaction is quenched with an aqueous NH_4Cl solution and the mixture is extracted with AcOEt (2 x 10 mL). The combined extracts are washed with H_2O (3 x 10 mL), brine, dried (MgSO_4), and concentrated. Column chromatography (silica gel; hexane : AcOEt = 10 : 1) provides 2-(4-methoxyphenyl)propene (0.041 g, 92%) as a colorless solid.

Ordering and Customer Service

TCI AMERICA

Tel : 800-423-8616 / 503-283-1681
Fax : 888-520-1075 / 503-283-1987
E-mail : Sales-US@TCIchemicals.com

TCI EUROPE N.V.

Tel : +32 (0)3 735 07 00
Fax : +32 (0)3 735 07 01
E-mail : Sales-EU@TCIchemicals.com

TCI Deutschland GmbH

Tel : +49 (0)6196 64053-00
Fax : +49 (0)6196 64053-01
E-mail : Sales-DE@TCIchemicals.com

Tokyo Chemical Industry UK Ltd.

Tel : +44 (0)1865 784560
Fax : +44 (0)1865 784561
E-mail : Sales-UK@TCIchemicals.com

TCI Chemicals (India) Pvt. Ltd.

Tel : 1800 425 7889 / 044-2262 0909
Fax : 044-2262 8902
E-mail : Sales-IN@TCIchemicals.com

梯希爱(上海)化成工业发展有限公司

Tel : 800-988-0390 / 021-67121386
Fax : 021-6712-1385
E-mail : Sales-CN@TCIchemicals.com

TOKYO CHEMICAL INDUSTRY CO., LTD.

Tel : +81 (0)3-5640-8878
Fax : +81 (0)3-5640-8902
E-mail : globalbusiness@TCIchemicals.com

Availability, price or specification of the listed products are subject to change without prior notice. Reproduction forbidden without the prior written consent of Tokyo Chemical Industry Co., Ltd.