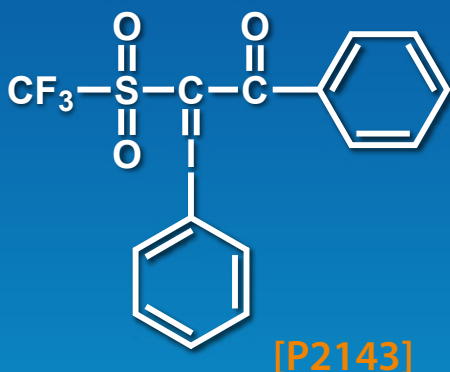


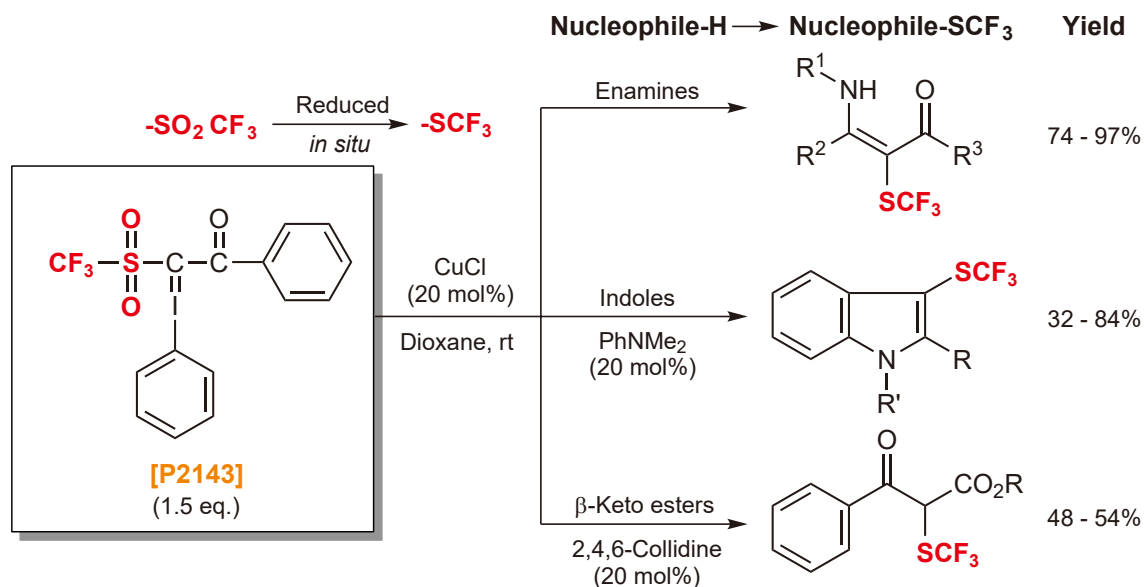
# Hypervalent Iodine Compound for Trifluoromethylthiolation Shibata Reagent II



## Advantage

A reactive trifluoromethylthio ( $\text{CF}_3\text{S}-$ ) species is generated from the trifluoromethanesulfonyl group by carbene-mediated *in situ* reduction catalyzed by a copper (I) salt in the presence of an amine, and reacts well with various nucleophiles to afford the  $\text{CF}_3\text{S}$ -substituted products.

## Application



Reference Y.-D. Yang, A. Azuma, E. Tokunaga, M. Yamasaki, M. Shiro, N. Shibata, *J. Am. Chem. Soc.* **2013**,

**Shibata Reagent II**

1g / 5g [P2143]

For further information please refer to our website at [www.TCIchemicals.com](http://www.TCIchemicals.com).

trifluoromethylthiolation



### 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.