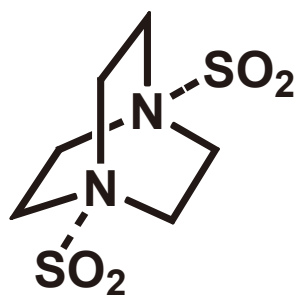
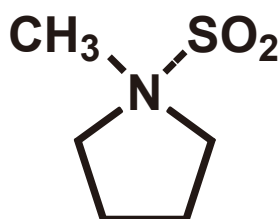


# Sulfur Dioxide (SO<sub>2</sub>) Surrogate Reagents Usable for Sulfonation



**DABSO**  
[B3960]



**TIMSO**  
*(New)* [U0113]



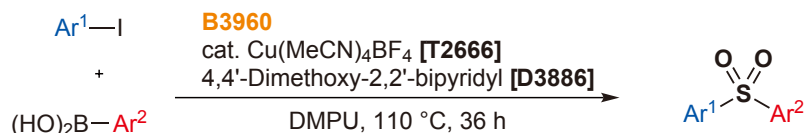
**Potassium  
Disulfite**  
[P2480]

## Advantages

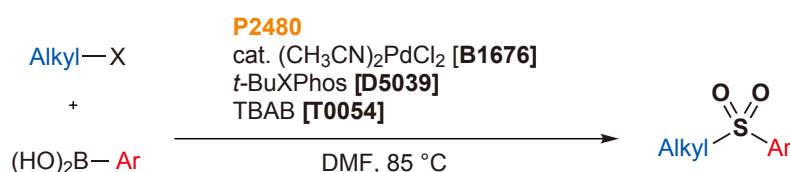
- **B3960** and **P2480** are bench-stable solids.
- **U0113** is a removable volatile liquid.
- Usable with metal catalysts.
- Applicable to the syntheses of various sulfone derivatives.

## Applications 1

### Sulfonation

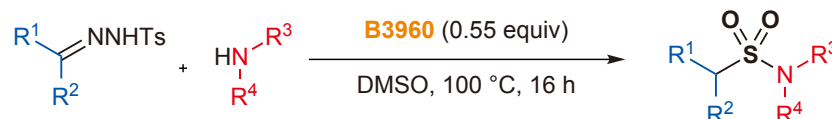


Y. Chen, M. C. Willis, *Chem. Sci.* **2017**, 3249.

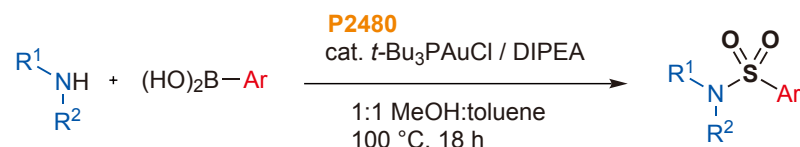


A. Shavnya, K. D. Hesp, V. Mascitti, A. C. Smith, *Angew. Chem. Int. Ed.* **2015**, 54, 3249.

### Sulfamidation



A. S. Tsai, J. M. Curto, B. N. Rocke, A. R. Dechert-Schmitt, G. K. Ingle, V. Mascitti, *Org. Lett.* **2016**, 18, 508.

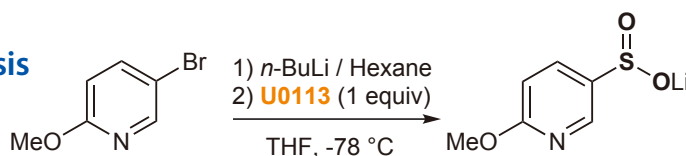


M. W. Johnson, S. W. Bagley, N. P. Mankad, R. G. Bergman, V. Mascitti, F. D. Toste, *Angew. Chem. Int. Ed.* **2014**, 53, 4404.

# Sulfur Dioxide (SO<sub>2</sub>) Surrogate Reagents Usable for Sulfonation

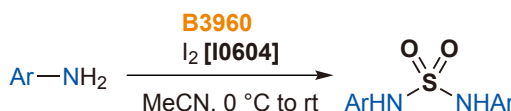
## Applications 2

### Lithium Sulfinatate Synthesis



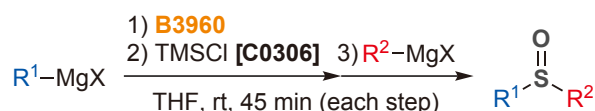
T. Markovic, B. N. Rocke, D. C. Blakemore, V. Mascitti, M. C. Willis, *Chem. Sci.* **2017**, 8, 4437.

### Sulfamination



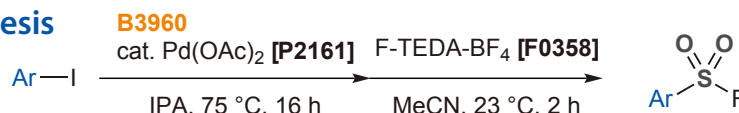
Y. Chen, M. C. Willis, *Chem. Sci.* **2017**, 3249.

### Sulfoxidation



D. C. Lenstra, V. Vedovato, E. F. Flegeau, J. Maydom, M. C. Willis, *Org. Lett.* **2016**, 18, 2086.

### Sulfonyl Fluoride Synthesis



A. L. Tribby, I. Rodriguez, S. Shariffudin, N. D. Ball, *J. Org. Chem.* **2017**, 82, 2294.

**DABSO**

1g / 5g [**B3960**]

**TIMSO**

5g / 25g [**U0113**]

**Potassium Disulfite**

25g / 500g [**P2480**]

**U0113** was commercialized under instruction by Prof. Dr. Michael C. Willis, University of Oxford.

## Related Products

<b>Tetrakis(acetonitrile)copper(I) Tetrafluoroborate (= Cu(MeCN)<sub>4</sub>BF<sub>4</sub>)</b>	1g / 5g / 25g [ <b>T2666</b> ]
<b>4,4'-Dimethoxy-2,2'-bipyridyl</b>	1g / 5g [ <b>D3886</b> ]
<b>Bis(acetonitrile)palladium(II) Dichloride (= (CH<sub>3</sub>CN)<sub>2</sub>PdCl<sub>2</sub>)</b>	1g / 5g [ <b>B1676</b> ]
<b><i>t</i>BuXPhos</b>	1g / 5g [ <b>D5039</b> ]
<b>Tetrabutylammonium Bromide (= TBAB)</b>	25g / 100g / 500g [ <b>T0054</b> ]
<b>Iodine</b>	25g / 500g [ <b>I0604</b> ]
<b>Chlorotrimethylsilane (= TMSCl)</b>	25mL / 100mL / 500mL [ <b>C0306</b> ]
<b>Palladium(II) Acetate (= Pd(OAc)<sub>2</sub>)</b>	1g / 5g [ <b>A1424</b> ]
<b>Palladium(II) Acetate (Purified) (= Pd(OAc)<sub>2</sub>)</b>	1g [ <b>P2161</b> ]
<b>F-TEDA-BF<sub>4</sub></b>	5g / 25g / 100g [ <b>F0358</b> ]

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