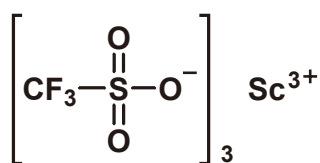


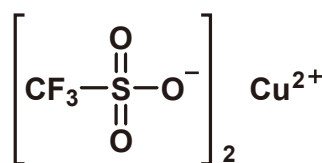
# Stable Lewis Acids in Aqueous Media

## Advantages

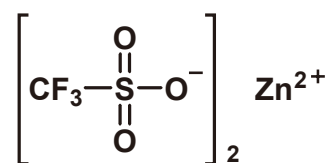
- Environmental-friendly Lewis Acids Applicable to Organic Reactions in Water
- Effectively Used for Reactions Such as Aldol Reactions and Diels-Alder Reactions
- Yb(OTf)<sub>3</sub> Can Be Reused after the Reaction.



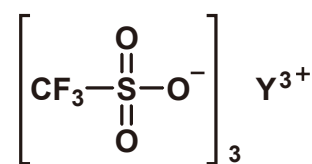
Scandium(III)  
Trifluoromethanesulfonate  
1g / 5g  
[T1663]



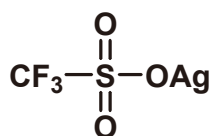
Copper(II)  
Trifluoromethanesulfonate  
5g / 25g  
[T1292]



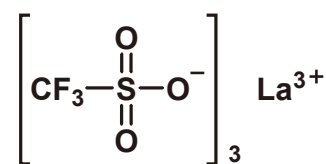
Zinc(II)  
Trifluoromethanesulfonate  
5g / 25g  
[T1294]



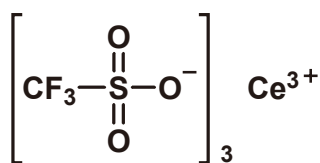
Yttrium(III)  
Trifluoromethanesulfonate  
5g / 25g  
[T1921]



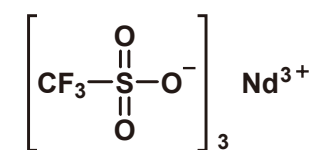
Silver  
Trifluoromethanesulfonate  
1g / 10g / 25g  
[T1331]



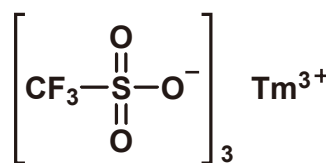
Lanthanum(III)  
Trifluoromethanesulfonate  
5g / 25g  
[T1293]



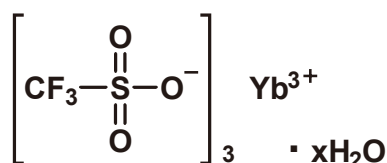
Cerium(III)  
Trifluoromethanesulfonate  
5g / 25g  
[T1918]



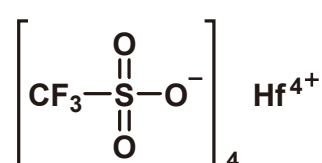
Neodymium(III)  
Trifluoromethanesulfonate  
5g / 25g  
[T1919]



Thulium(III)  
Trifluoromethanesulfonate  
5g  
[T1920]



Ytterbium(III)  
Trifluoromethanesulfonate Hydrate  
5g / 25g  
[T1610]



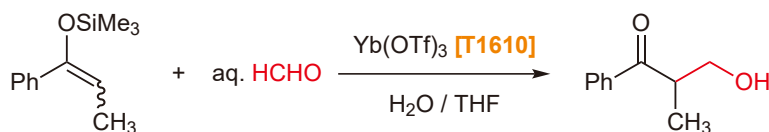
Hafnium(IV)  
Trifluoromethanesulfonate  
1g / 5g  
[T1708]



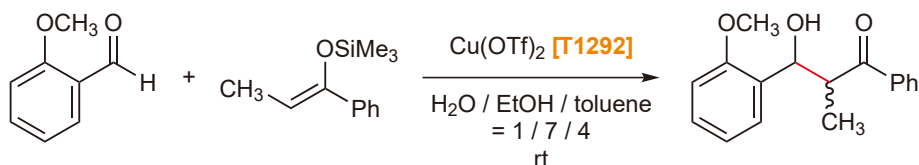
Indium(III)  
Chloride Anhydrous  
5g / 25g  
[I0778]

## Applications

### Aldol Reactions

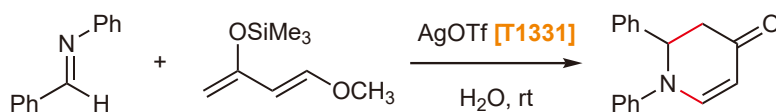


**Reference** S. Kobayashi, *Chem. Lett.* **1991**, 20, 2187.  
DOI: <https://doi.org/10.1246/cl.1991.2187>



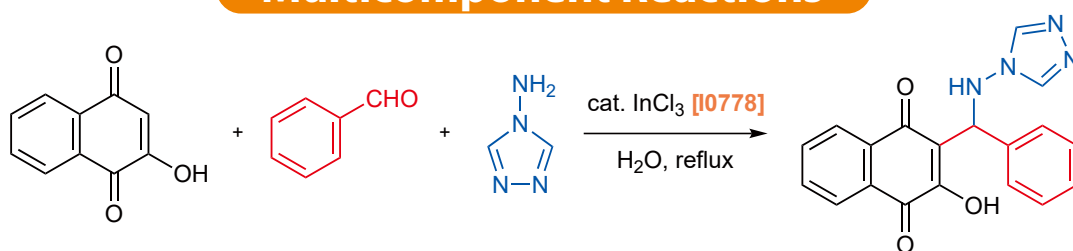
**Reference** S. Kobayashi, S. Nagayama, T. Busujima, *Chem. Lett.* **1997**, 26, 959.  
DOI: <https://doi.org/10.1246/cl.1997.959>

### Diels-Alder Reactions



**Reference** C. Loncaric, K. Manabe, S. Kobayashi, *Adv. Synth. Catal.* **2003**, 345, 475.  
DOI: <https://doi.org/10.1002/adsc.200390052>

### Multicomponent Reactions



**Reference** M. Dabiri, Z. N. Tisseh, A. Bazgir, *Dyes and Pigments* **2011**, 89, 63.  
DOI: <https://doi.org/10.1016/j.dyepig.2010.09.004>

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