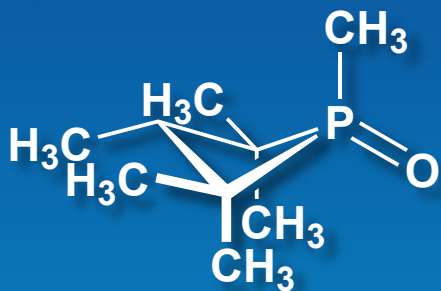


New

CHEMISTRY



# Organocatalyst for Coupling Reactions by Activation of Nitro Group



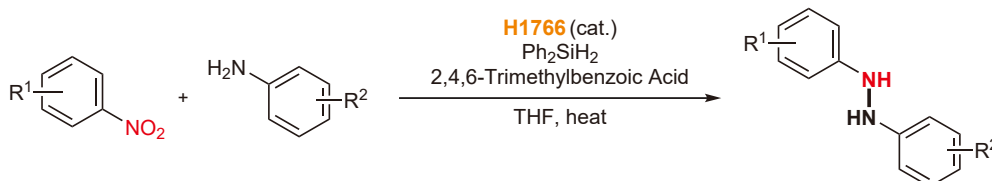
**anti-1,2,2,3,4,4-Hexamethylphosphetane 1-Oxide**  
1g / 5g  
[H1766]

## Advantages

- Activates nitro groups to form N-N bonds by reacting with amino groups. That leads to corresponding hydrazine derivatives in good yields.
- Catalyzes the formation of di(hetero)arylamines by a deoxygenative C-N cross-coupling reaction of nitro(hetero)arenes with (hetero)arylboronic acids.

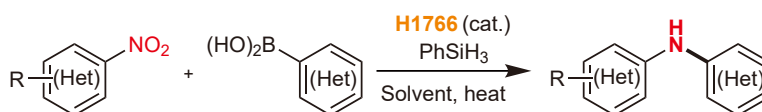
## Applications

### Synthesis of hydrazine derivatives by coupling of nitroarenes with anilines



Reference G. Li, S. P. Miller, A. T. Radosevich, *J. Am. Chem. Soc.* **2021**, *143*, 14464.  
DOI: <https://doi.org/10.1021/jacs.1c07272>

### Reductive C-N coupling reaction between nitro(hetero)arenes and (hetero)arylboronic acids



Reference G. Li, T. V. Nykaza, J. C. Cooper, A. Ramirez, M. R. Luzung, A. T. Radosevich, *J. Am. Chem. Soc.* **2020**, *142*, 6786.  
DOI: <https://doi.org/10.1021/jacs.0c01666>

## Related Products

Diphenylsilane (= Ph<sub>2</sub>SiH<sub>2</sub>)

Phenylsilane (= PhSiH<sub>3</sub>)

2,4,6-Trimethylbenzoic Acid

5g / 25g [D2820]

5mL / 25mL [P1291]

10g / 25g [T1421]

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

TCI organocatalysts



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