

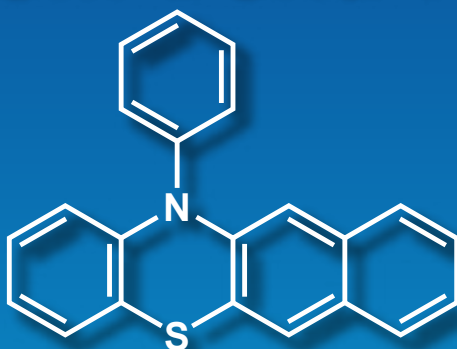
New

CHEMISTRY

MATERIALS

TCI

Visible Light Photoredox Organocatalyst for Carbon (sp³)-Heteroatom Bond Formation



12-Phenyl-12H-benzo[b]phenothiazine

200mg / 1g

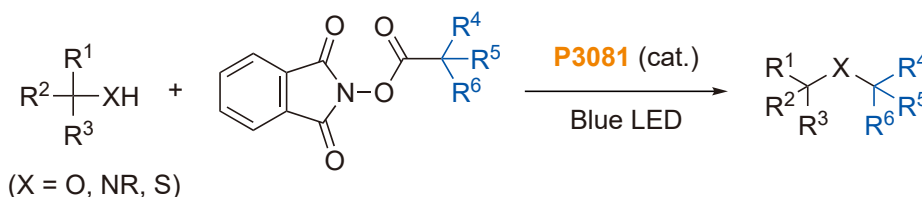
[P3081]

Advantages

- Excited by blue light ¹⁾ $\lambda_{\max} = 376 \text{ nm}$, $E_{S1}^{1/2*} = -2.08 \text{ V}$, $E_{T1}^{1/2*} = -2.12 \text{ V}$
- Catalyzes carbon (sp³)-heteroatom bond formation ^{2,3)}
- Can also be used as a photocatalyst for metal-free organocatalyzed atom transfer radical polymerization (O-ATRP) ⁴⁾

Applications

Carbon (sp³)-Heteroatom Bond Formation



- References**
- 1) D. Liu, P. Xu, *et al.*, *Org. Lett.* **2018**, *20*, 5700. <https://doi.org/10.1021/acs.orglett.8b02420>
 - 2) S. Shibutani, H. Ohmiya, *et al.*, *J. Am. Chem. Soc.* **2020**, *142*, 1211. <https://doi.org/10.1021/jacs.9b12335>
 - 3) R. Kobayashi, H. Ohmiya, *et al.*, *Org. Lett.* **2021**, *23*, 5415. <https://doi.org/10.1021/acs.orglett.1c01745>
 - 4) S. Dadashi-Silab, X. Pan, K. Matyjaszewski, *Chem. Eur. J.* **2017**, *23*, 5972. <https://doi.org/10.1002/chem.201605574>

Related Products

10-(4-Methoxyphenyl)phenothiazine
12H-benzo[b]phenothiazine

1g / 5g [M3639]

1g / 5g [B6562]

For further information please refer to our website at www.TCIchemicals.com.

TCI photoredox



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