

New

CHEMISTRY



HPMC Capsule Reagents

– Convenient Products for Rapid Reactions without Weighing the Reaction Reagents –



Advantages

- Hydroxypropyl methylcellulose (HPMC) capsule reagents contain general reaction reagents or catalysts for photoredox reactions, condensation reactions and Suzuki-Miyaura cross-coupling reactions.
- HPMC capsule reagents make it easy to carry out reactions because they are readily soluble in reaction solutions after adding.
- HPMC capsule dissolves in water, DMSO, DMF, NMP, DMAc, THF/water and dioxane/water.

Reagents for Metallophotoredox Cross-Coupling Reactions

[NiBr₂(dme), [Ir[dF(CF₃)ppy]₂(dtbbpy)]PF₆, DABCO] (HPMC encapsulated)

10each [R0273]

Reagents for Condensation Reactions

(EDCI·HCl, HOBt·H₂O) (HPMC encapsulated)

10each [R0274]

Reagents for Suzuki-Miyaura Cross-Coupling Reactions

[Pd(dppf)Cl₂·CH₂Cl₂, Cs₂CO₃] (HPMC encapsulated)

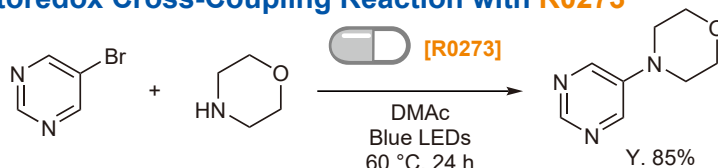
10each [R0275]

The formation of the reactive site in the hydrophobic pockets of HPMC in water allows chemical reactions to proceed very rapidly under mild reaction conditions.¹⁾

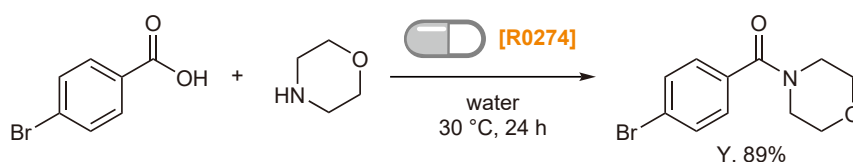
Our HPMC capsule reagents can accelerate your experiments and library construction in both experimental operations and reactions.

Applications

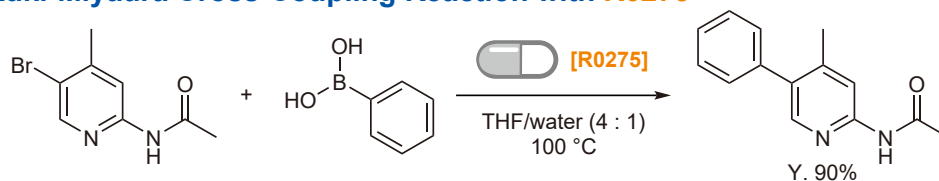
Metallophotoredox Cross-Coupling Reaction with R0273



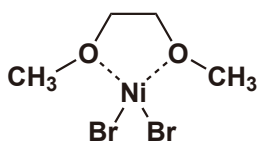
Condensation Reaction with R0274



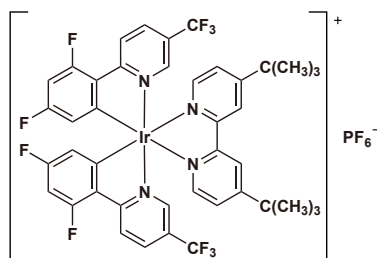
Suzuki-Miyaura Cross-Coupling Reaction with R0275



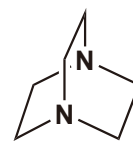
R0273 for Metallophotoredox Cross-Coupling Reactions



NiBr₂(dme)
ca. 0.03 mmol

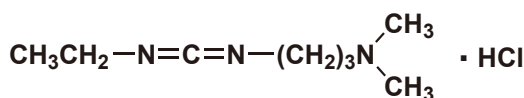


[Ir(dF(CF₃)ppy)₂(dtbbpy)]PF₆
ca. 0.12 μmol

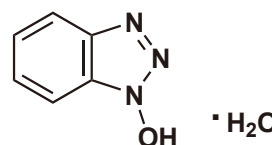


DABCO
ca. 1.1 mmol

R0274 for Condensation Reactions

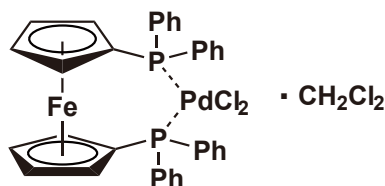


EDCI·HCl
ca. 0.25 mmol

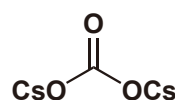


HOBt Monohydrate
ca. 0.04 mmol

R0275 for Suzuki-Miyaura Cross-Coupling Reactions



Pd(dppf)Cl₂·CH₂Cl₂
ca. 0.03 mmol



Cs₂CO₃
ca. 0.7 mmol

References

- 1) N. Borlinghaus, A. Jolit, *et al.*, *J. Org. Chem.* **2021**, *86*, 1357. <https://doi.org/10.1021/acs.joc.0c02576>
- 2) S. Sharma, S. Handa, *et al.*, *ACS Sustainable Chem. Eng.* **2021**, *9*, 12719. <https://doi.org/10.1021/acssuschemeng.1c04607>
- 3) D. Petkova, S. Handa, *et al.*, *ACS Sustainable Chem. Eng.* **2020**, *8*, 12612. <https://doi.org/10.1021/acssuschemeng.0c03975>

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