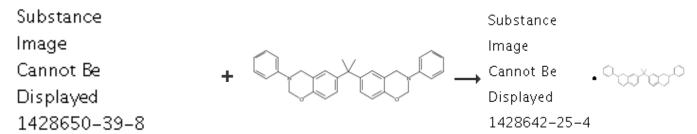
1. Single Step



Overview

Steps/Stages

1.1 3 h, 100°C; 2 h, 160°C; 2 h, 180°C; 2 h, 200°C; 2 h, 220°C

Notes

reactant predissolved in CHCl3 and poured onto Teflon moulds, Reactants: 2, Steps: 1, Stages: 1, Most stages in any one step: 1

References

A New Benzoxazine Containing Benzoxazole-Functionalized Polyhedral Oligomeric Silsesquioxane and the Corresponding Polybenzoxazine Nanocomposites

[Step 2.1]

By Zhang, Kan et al

From Macromolecules (Washington, DC, United States), 46(7), 2696-2704; 2013

Experimental Procedure

Preparation of POSS/PBz Nanocomposites. Different OPS-Bz contents (10, 20 and 30 wt %) were added to 10.0 g of Ba-A dissolved in 20 mL chloroform. The resulting solution was stirred for 30 min at 60 °C. The solution were poured into respective Teflon molds and allowed to evaporate for 12 h at room temperature through an exhaust chamber. The monomer was cured at 100 °C for 3 h and then postcured at 160, 180, 200 and 220 °C for 2 h.

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2. 3 Steps

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Overview

Steps/Stages

1.1 R:H₂SO₄, S:H₂O, S:AcOH, 0-10°C; > 1 h, 10°C \rightarrow rt; 16 h, rt

1.2 R:NaHCO₃, S:H₂O, cooled, neutralized

1.3 R:HCl, S:H₂O, S:EtOH, 3 h, rt \rightarrow 85°C

2.1 R:Et₃N, S:CH₂Cl₂, 1 h, rt

2.2 R:NaHCO₃, S:H₂O

3.1 R:LiAlH₄, S:THF, rt; overnight, rt

3.2 R:NH₄Cl, S:H₂O

Notes

Reactants: 3, Reagents: 6, Solvents: 5, Steps: 3, Stages: 7, Most stages in any one step: 3

References

Preparation of aminoalkylphenols as antimalarials active against drug-resistant Plasmodia.

By Dorn, Conrad P. et al From PCT Int. Appl., 2004000783, 31 Dec 2003

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3.3 Steps

[Step 3.1]

Overview

Steps/Stages

1.1 R:H₂SO₄, S:H₂O, S:AcOH, 0-10°C; > 1 h, 10°C \rightarrow rt; 16 h, rt

1.2 R:NaHCO₃, S:H₂O, cooled, neutralized

1.3 R:HCl, S:H₂O, S:EtOH, 3 h, rt \rightarrow 85°C

2.1 R:Hexamethylentetramine, S:H₂O, S:AcOH, 3 h, reflux

2.2 R:HCl, S:H₂O, 10 min, reflux

3.1 R:AcOH, S:THF, S:CICH₂CH₂CI, 5 h, rt

3.2 R:Na+ •(AcO)₃BH-, S:CICH₂CH₂CI, overnight, rt

Notes

2) prophetic reaction, Reactants: 3, Reagents: 6, Solvents: 5, Steps: 3, Stages: 7, Most stages in any one step: 3

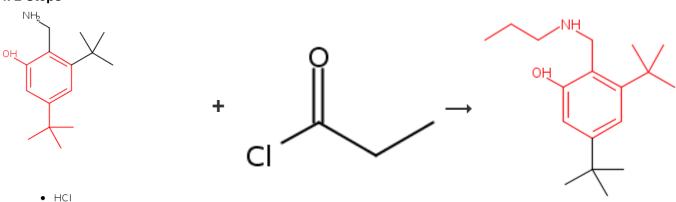
References

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4. 2 Steps



Overview

Steps/Stages

- 1.1 R:Et₃N, S:CH₂Cl₂, 1 h, rt
- 1.2 R:NaHCO₃, S:H₂O
- 2.1 R:LiAlH₄, S:THF, rt; overnight, rt
- 2.2 R:NH₄CI, S:H₂O

Notes

Reactants: 2, Reagents: 4, Solvents: 3, Steps: 2, Stages: 4, Most stages in any one step: 2

References

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5. 2 Steps

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[Step 2.1]

Overview

Steps/Stages

- 1.1 R:Hexamethylentetramine, S:H₂O, S:AcOH, 3 h, reflux
- 1.2 R:HCl, S:H₂O, 10 min, reflux
- 2.1 R:AcOH, S:THF, S:CICH₂CH₂CI, 5 h, rt
- 2.2 R:Na+ •(AcO)₃BH-, S:CICH₂CH₂CI, overnight, rt

Notes

1) prophetic reaction, Reactants: 2, Reagents: 4, Solvents: 4, Steps: 2, Stages: 4, Most stages in any one step: 2

References

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6. 2 Steps

Overview

Steps/Stages Notes

- 1.1 R:H₂SO₄, S:H₂O, S:AcOH, 0-10°C; > 1 h, 10°C \rightarrow rt; 16 h, rt
- 1.2 R:NaHCO₃, S:H₂O, cooled, neutralized
- 1.3 R:HCl, S:H₂O, S:EtOH, 3 h, rt \rightarrow 85°C
- 2.1 C:AcOH, S:CICH₂CH₂CI, 5 h, rt
- 2.2 R:Na+ •(AcO)₃BH-, overnight, rt

2) molecular sieves used (stage 1), Reactants: 3, Reagents: 4, Catalysts: 1, Solvents: 4, Steps: 2, Stages: 5, Most stages in any one step: 3

References

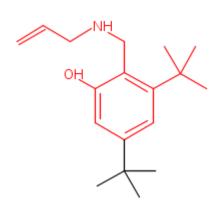
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7. 2 Steps

[Step 2.1]



Overview

Steps/Stages

- 1.1 R:H₂SO₄, S:H₂O, S:AcOH, 0-10°C; > 1 h, 10°C \rightarrow rt; 16 h, rt
- 1.2 R:NaHCO₃, S:H₂O, cooled, neutralized
- 1.3 R:HCl, S:H₂O, S:EtOH, 3 h, rt \rightarrow 85°C
- 2.1 R:NaHCO₃, S:CH₂Cl₂, overnight, rt

Notes

Reactants: 3, Reagents: 3, Solvents: 4, Steps: 2, Stages: 4, Most stages in any one step: 3

References

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8. 2 Steps

Overview

Steps/Stages

- 1.1 R:H₂SO₄, S:H₂O, S:AcOH, 0-10°C; > 1 h, 10°C \rightarrow rt; 16 h, rt
- 1.2 R:NaHCO₃, S:H₂O, cooled, neutralized
- 1.3 R:HCl, S:H₂O, S:EtOH, 3 h, rt \rightarrow 85°C
- 2.1 C:AcOH, S:CICH₂CH₂CI, 5 h, rt
- 2.2 R:Na+ •(AcO)₃BH-, overnight, rt

Notes

2) molecular sieves used (stage 1), Reactants: 3, Reagents: 4, Catalysts: 1, Solvents: 4, Steps: 2, Stages: 5, Most stages in any one step: 3

[Step 2.1]

References

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9. 2 Steps

[Step 2.1]

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Overview

Steps/Stages

R:H₂SO₄, S:H₂O, S:AcOH, 0-10°C; > 1 h, 10°C \rightarrow rt; 16 h, rt

1.2 R:NaHCO₃, S:H₂O, cooled, neutralized

1.3 R:HCl, S:H₂O, S:EtOH, 3 h, rt \rightarrow 85°C

C:AcOH, S:CICH2CH2CI, 5 h, rt 2.1

2.2 R:Na+ •(AcO)₃BH-, overnight, rt

Notes

2) molecular sieves used (stage 1), Reactants: 3, Reagents: 4, Catalysts: 1, Solvents: 4, Steps: 2, Stages: 5, Most stages in any one step: 3

References

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[Step 2.1]

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10. 2 Steps

Overview

Steps/Stages **Notes**

- 1.1 R:H₂SO₄, S:H₂O, S:AcOH, 0-10°C; > 1 h, 10°C \rightarrow rt; 16 h, rt
- 1.2 R:NaHCO₃, S:H₂O, cooled, neutralized
- 1.3 R:HCl, S:H₂O, S:EtOH, 3 h, rt \rightarrow 85°C
- 2.1 C:AcOH, S:CICH₂CH₂CI, 5 h, rt
- 2.2 R:Na+ •(AcO)₃BH-, overnight, rt

2) molecular sieves used (stage 1), Reactants: 3, Reagents: 4, Catalysts: 1, Solvents: 4, Steps: 2, Stages: 5, Most stages in any one step: 3

References

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11. Single Step

Overview

Steps/Stages

- 1.1 C:AcOH, S:CICH₂CH₂CI, 5 h, rt
- 1.2 R:Na+ •(AcO)₃BH-, overnight, rt

Notes

molecular sieves used (stage 1), Reactants: 2, Reagents: 1, Catalysts: 1, Solvents: 1, Steps: 1, Stages: 2, Most stages in any one step: 2

References

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By Dorn, Conrad P. et al From PCT Int. Appl., 2004000783, 31 Dec 2003

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12. Single Step

Overview

Steps/Stages

1.1 R:NaHCO₃, S:CH₂Cl₂, overnight, rt

Notes

Reactants: 2, Reagents: 1, Solvents: 1, Steps: 1, Stages: 1, Most stages in any one step: 1

References

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13. Single Step

Overview

Steps/Stages Notes

1.1 C:AcOH, S:CICH₂CH₂CI, 5 h, rt

1.2 R:Na+ •(AcO)₃BH-, overnight, rt

molecular sieves used (stage 1), Reactants: 2, Reagents: 1, Catalysts: 1, Solvents: 1, Steps: 1, Stages: 2, Most stages in any one step: 2

References

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14. Single Step

Overview

Steps/Stages

- 1.1 C:AcOH, S:CICH₂CH₂CI, 5 h, rt
- 1.2 R:Na+ •(AcO)₃BH-, overnight, rt

Notes

molecular sieves used (stage 1), Reactants: 2, Reagents: 1, Catalysts: 1, Solvents: 1, Steps: 1, Stages: 2, Most stages in any one step: 2

References

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15. Single Step

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Overview

Steps/Stages

- 1.1 C:AcOH, S:CICH₂CH₂CI, 5 h, rt
- 1.2 R:Na+ •(AcO)₃BH-, overnight, rt

Notes

molecular sieves used (stage 1), Reactants: 2, Reagents: 1, Catalysts: 1, Solvents: 1, Steps: 1, Stages: 2, Most stages in any one step: 2

References

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16. Single Step

Overview

Steps/Stages Notes

1.1 R:AcOH, S:THF, S:CICH₂CH₂CI, 5 h, rt

1.2 R:Na+ •(AcO)₃BH-, S:CICH₂CH₂CI, overnight, rt

Reactants: 2, Reagents: 2, Solvents: 2, Steps: 1, Stages: 2, Most stages in any one step: 2

References

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17. Single Step

Overview

Steps/Stages

- 1.1 R:H₂SO₄, S:H₂O, S:AcOH, 0-10°C; > 1 h, 10°C \rightarrow rt; 16 h, rt
- 1.2 R:NaHCO₃, S:H₂O, cooled, neutralized
- 1.3 R:LiAlH₄, S:THF, rt; overnight, rt
- 1.4 R:NH₄CI, S:H₂O

Notes

Reactants: 2, Reagents: 4, Solvents: 3, Steps: 1, Stages: 4, Most stages in any one step: 4

References

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