

Reaction	Stages	Notes	Yield
1	1.1 R:HCl, R:ZnCl ₂ , R:NaNO ₂ , S:CH ₂ Cl ₂	Reactants: 1, Reagents: 3, Solvents: 1, Stages: 1	60%

References

[Synthesis of buspirone](#)

By Xu, Yan et al

From Zhongguo Yiyao Gongye Zazhi, 24(2), 49-51; 1993

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Reaction	Stages	Notes	Yield
2	1.1	Reactants: 2, Stages: 1	

References

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Reaction	Stages	Notes	Yield
3	1.1 R:H ₂ SO ₄ , S:H ₂ O	Reactants: 1, Reagents: 1, Solvents: 1, Stages: 1	93%

References

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Reaction	Stages	Notes	Yield
4	1.1 S:Ac ₂ O	Reactants: 1, Solvents: 1, Stages: 1	90%

References

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Reaction	Stages	Notes	Yield
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- 5
- 1.1 R:NH₃, S:H₂O
- 1.2 R:K₂CO₃, S:PhMe
- Reactants: 2, Reagents: 2,
Solvents: 2, Stages: 2

References[Synthesis of buspirone](#)

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- | Reaction | Stages | Notes | Yield |
|----------|--|--|-------|
| 6 | 1.1 R:K ₂ CO ₃ , R:HCl, S:BuOH | Reactants: 2, Reagents: 2,
Solvents: 1, Stages: 1 | 72% |

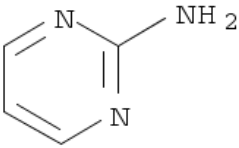
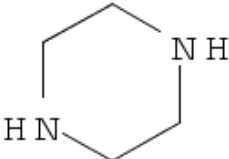
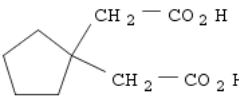
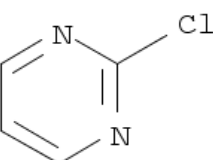
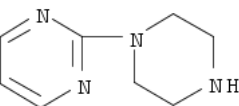
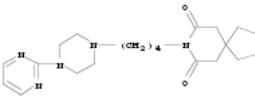
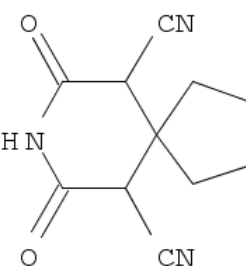
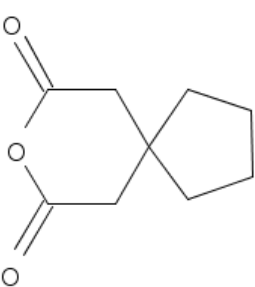
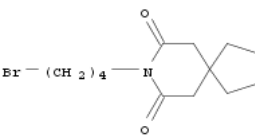
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Substance Information

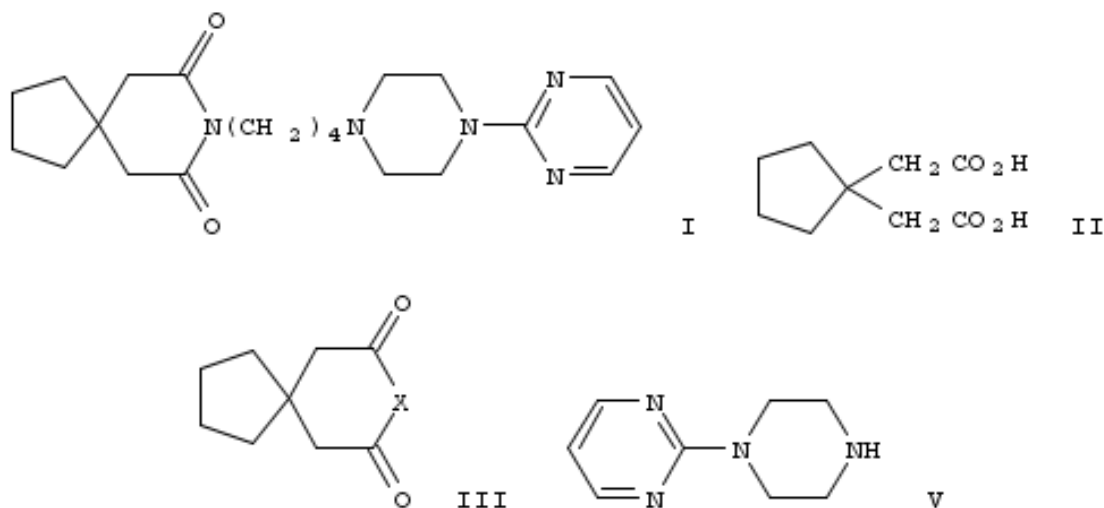
109-12-6  C₄ H₅ N₃ 2-Pyrimidinamine ~1952 References Reactions Commercial Sources Regulatory Information	110-52-1 Br — (CH₂)₄ — Br C₄ H₈ Br₂ Butane, 1,4-dibromo- ~5350 References Reactions Commercial Sources Regulatory Information	110-85-0  C₄ H₁₀ N₂ Piperazine ~12798 References Reactions Commercial Sources Regulatory Information
16713-66-9  C₉ H₁₄ O₄ 1,1-Cyclopentanediadicetic acid ~87 References Reactions Commercial Sources Regulatory Information	1722-12-9  C₄ H₃ Cl N₂ Pyrimidine, 2-chloro- ~1365 References Reactions Commercial Sources Regulatory Information	20980-22-7  C₈ H₁₂ N₄ Pyrimidine, 2-(1-piperazinyl)- ~1101 References Reactions Commercial Sources Regulatory Information
36505-84-7  C₂₁ H₃₁ N₅ O₂ 8-Azaspiro[4.5]decane-7,9-dione, 8-[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]- ~1985 References Reactions Commercial Sources Regulatory Information	42940-56-7  C₁₁ H₁₁ N₃ O₂ 8-Azaspiro[4.5]decane-6,10-dicarbonitrile, 7,9-dioxo- ~16 References Reactions Commercial Sources Regulatory Information	5662-95-3  C₉ H₁₂ O₃ 8-Oxaspiro[4.5]decane-7,9-dione ~161 References Reactions Commercial Sources Regulatory Information
80827-62-9  C₁₃ H₂₀ Br N O₂ 8-Azaspiro[4.5]decane-7,9-dione, 8-(4-bromobutyl)- ~40 References Reactions Commercial Sources Regulatory Information		

Synthesis of buspirone

By Xu, Yan; Zhu, Zhihong; Tong, Zhijie; Peng, Dongmin; Duan, Lixin

From Zhongguo Yiyao Gongye Zazhi (1993), 24(2), 49-51. Language: Chinese, Database: CAPLUS

Buspirone (I), a known antidepressant, is prepd. by an improved process in higher yield, under mild conditions, and using no toxic solvent. Refluxing diacid II in Ac₂O gave 90% anhydride III, (X = O), which was treated with concn. NH₄OH to give 95% imide III (X = NH) (IV). Refluxing imide IV with Br(CH₂)₄Br and K₂CO₃ in MePh gave 60% III [X = Br(CH₂)₄], which was refluxed with piperazine V and K₂CO₃ in BuOH, and the resulting yellow solid was recrystd. and treated with HCl-EtOH to give 72% I-HCl.



~6 Citings

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0 Comments

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