

WE CLAIM:

1. A process to prepare (S)-N-[[3-(3-fluoro-4-(4-morpholinyl)phenyl)-2-oxo-5-oxazolidinyl]methyl]acetamide, crystal "Form II" which comprises:

(a) producing (S)-N-[[3-(3-fluoro-4-(4-morpholinyl)phenyl)-2-oxo-5-oxazolidinyl]methyl]acetamide in greater than 98% enantiomeric purity;

(b) mixing the greater than 98% enantiomerically pure (S)-N-[[3-(3-fluoro-4-(4-morpholinyl)phenyl)-2-oxo-5-oxazolidinyl]methyl]acetamide in a solvent of the kind such as herein described or mixture of solvents of the kind such as herein described at a temperature below a temperature of 80°C and

(c) separating the (S)-N-[[3-(3-fluoro-4-(4-morpholinyl)phenyl)-2-oxo-5-oxazolidinyl]methyl]acetamide crystal "Form II" from the solvent(s).

2. A process as claimed in claim 1, wherein the enantiomeric purity is greater than 99%.

3. A process as claimed in claim 2, wherein the enantiomeric purity is greater than 99.5%.

4. A process as claimed in claim 1, wherein the solvent is selected from the group consisting of compounds of the formula:

water,

acetonitrile,

chloroform, methylene chloride, toluene,

R₁-OH, where R₁ is C₁-C₆ alkyl,

R₁-CO-R₂, where R₂ is C₁-C₆ alkyl or phenyl substituted with 1 through 3 R₁ and where R₁ is as defined above,

R₁-CO-O-R₂, where R₁ is C₁-C₆ alkyl and R₂ is as defined above, R₁-O-R₂ where R₁ is C₁-C₆ alkyl and R₂ is as defined above.

5. A process as claimed in claim 4, wherein the solvent is selected from the group consisting of water, ethyl acetate, methanol, ethanol, propanol, isopropanol, butanol, acetonitrile, acetone, methyl ethyl ketone, chloroform, methylene chloride, toluene, xylene, diethyl ether, or methyl-t-butyl ether.

6. A process as claimed in claim 4, wherein the solvent is selected from the group consisting of ethyl acetate, acetone, acetonitrile, propanol; or isopropanol.
7. A process as claimed in claim 4, wherein the solvent is ethyl acetate.
8. A process as claimed in claim 1, wherein the (S)-N-[[3-(3-fluoro-4-(4-morpholinyl)phenyl)-2-oxo-5-oxazolidinyl]methyl]acetamide is mixed for at least 10 min in the solvent or mixture of solvents.
9. A process as claimed in claim 8, wherein the (S)-N-[[3-(3-fluoro-4-(4-morpholinyl)phenyl)-2-oxo-5-oxazolidinyl]methyl]acetamide is mixed for at least 20 min in the solvent or mixture of solvents.
10. A process as claimed in claim 8, wherein the linezolid is mixed for at least 30 min in the solvent or mixture of solvents.
11. A process as claimed in claim 1, wherein the temperature is less than about 75°C.
12. A process as claimed in claim 11, wherein the temperature is from about 45°C to about 60°C.
13. A process as claimed in claim 1, wherein the (S)-N-[[3-(3-fluoro-4-(4-morpholinyl)phenyl)-2-oxo-5-oxazolidinyl]methyl]acetamide is isolated as a solid before mixing with a solvent or mixture of solvents.
14. A process as claimed in claim 1, wherein the (S)-N-[[3-(3-fluoro-4-(4-morpholinyl)phenyl)-2-oxo-5-oxazolidinyl]methyl]acetamide is kept in solution before mixing with a solvent or mixture of solvents.

Dated this 28th day of June, 2002.


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GRANTED