CLAIMS

1. A process for the preparation of a crystalline polymorph Form A of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide, wherein said Form A has an X-ray powder diffraction pattern measured using Cu Kα radiation with peaks at 2θ = about 9.3, 9.7, 10.2, 10.5, 11.7, 13.0, 14.5, 15.0, 15.5, 16.0, 16.4, 16.9, 17.8, 18.0, 20.0, 20.5, 20.9, 22.0, 22.3, 23.4, 24.2 and 24.5°, the method comprising:

(a) dissolving 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide, at a temperature of at least 40°C, in a non-aqueous solvent or mixture of non-aqueous solvents to obtain a solution, wherein the solvent or solvents contain less than about 5 wt% of water relative to the 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide starting material;

(a') optionally seeding the solution with Form A crystals of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide;

(b) cooling the solution, thereby forming crystals of polymorph Form A of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide;

(c) isolating the crystals.

2. A process for the preparation of a crystalline polymorph Form A of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide, wherein said Form A has an X-ray powder diffraction pattern measured using Cu Kα radiation with peaks at 2θ = about 9.3, 9.7, 10.2, 10.5, 11.7, 13.0, 14.5, 15.0, 15.5, 16.0, 16.4, 16.9, 17.8, 18.0, 20.0, 20.5, 20.9, 22.0, 22.3, 23.4, 24.2 and 24.5°, the method comprising:

(a) dissolving 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide, at a temperature of at least 40°C, in a non-aqueous solvent or mixture of non-aqueous solvents to obtain a solution;

(a') optionally seeding the solution with Form A crystals of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide;

(b) cooling the solution, thereby forming crystals of polymorph Form A of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide;

(c) isolating the crystals;

wherein the temperature of all process steps does not exceed 100°C.

3. A process for the preparation of a crystalline polymorph Form A of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide, wherein said Form A has an X-ray powder diffraction pattern measured using Cu Kα radiation with peaks at 2θ = about 9.3, 9.7, 10.2, 10.5, 11.7, 13.0, 14.5, 15.0, 15.5, 16.0, 16.4, 16.9, 17.8, 18.0, 20.0, 20.5, 20.9, 22.0, 22.3, 23.4, 24.2 and 24.5°, the method comprising:

(a) dissolving 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide, at a temperature of at least 40°C, in a non-aqueous solvent or mixture of non-aqueous solvents to obtain a solution, wherein the solvent or solvents contain less than about 5 wt% of water relative to the 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide starting material;

(a') optionally seeding the solution with Form A crystals of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide;

(b) cooling the solution, thereby forming crystals of polymorph Form A of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide;

(c) isolating the crystals;

wherein the temperature of all process steps does not exceed 100°C.

4. The process according to any preceding claim, wherein the cooling step (b) is cooled at a rate of about between 1 and 0.01 °C/min, preferably between 0.5 and 0.05 °C/min, preferably between 0.2 and 0.08 °C/min, preferably at about 0.1°C/min.

5. The process according to any preceding claim, wherein the seeding step (a') is seeded with greater than 0.1 wt% of Form A 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide, relative to the weight of the 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide dissolved in step (a), preferably greater than 0.5 wt%, preferably greater than 1 wt%.

6. The process according to any preceding claim, wherein the temperature used during the crystallisation does not exceed 80°C, preferably does not exceed 70°C, preferably does not exceed 60°C, preferably does not exceed 50°C, and preferably does not exceed 40°C.

7. The process according to any preceding claim, wherein the solution of 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide is not exposed to temperatures of greater than 70°C for more than 24 hours, preferably not more than 12 hours, preferably not more than 6 hours.

8. The process according to any preceding claim, wherein the nonaqueous solvent or mixture of non-aqueous solvents are selected from the group consisting of C_{1-6} alcohols, C_{4-10} cyclic ethers, C_{1-6} nitriles, C_{1-6} haloalkanes, C_{1-6} ketones, dialkylformamides, dialkyl sulfoxides, C_{3-10} aryls, C_{5-10} alkanes, petroleum ether, C_{1-6} alkyl acetate, C_{1-6} ether, preferably in the substantial absence of water.

9. The process according to claim 8, wherein the nonaqueous solvent(s) are selected from the group consisting of methanol, ethanol, tetrahydrofuran, acetonitrile, methylene chloride, isopropyl alcohol, acetone, N,N-dimethylformamide (DMF), dimethyl sulfoxide (DMSO), toluene, benzene, n-hexane, petroleum ether, ethyl acetate, ether, dichloromethane, chloroform and carbon tetrachloride, preferably in the substantial absence of water.

10. The process according to any preceding claim, wherein during step (b), an anti-solvent may be added to the solution.

11. The process according to any preceding claim, wherein during step (b), the amount of the solvent is reduced, preferably by distillation.

12. Form A 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide, wherein said Form A has an X-ray powder diffraction pattern measured using Cu Kα radiation with peaks at 2θ = about 9.3, 9.7, 10.2, 10.5, 11.7, 13.0, 14.5, 15.0, 15.5, 16.0, 16.4, 16.9, 17.8, 18.0, 20.0, 20.5, 20.9, 22.0, 22.3, 23.4, 24.2 and 24.5°.

13. A pharmaceutical composition comprising Form A 3-[5-amino-4-(3-cyanobenzoyl)-pyrazol-1-yl]-N-cyclopropyl-4-methylbenzamide according to claim 12.