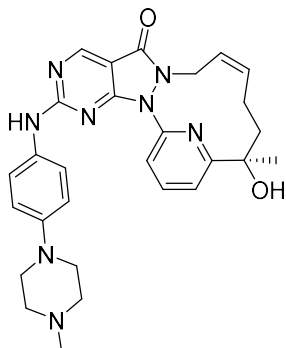


Claims

Claim 1. A Crystal Form A of a compound of formula (I), wherein the Crystal Form A has an X-ray powder diffraction (XRPD) pattern having characteristic diffraction peaks at the following 2θ angles: $5.71\pm0.2^\circ$, $12.68\pm0.2^\circ$ and $15.32\pm0.2^\circ$



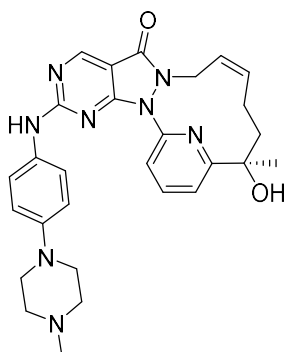
Formula (I).

Claim 2. The Crystal Form A according to claim 1, wherein the Crystal Form A has an X-ray powder diffraction pattern having characteristic diffraction peaks at the following 2θ angles: $5.71\pm0.2^\circ$, $12.68\pm0.2^\circ$, $15.32\pm0.2^\circ$, $18.04\pm0.2^\circ$, $19.72\pm0.2^\circ$, $21.44\pm0.2^\circ$, $23.61\pm0.2^\circ$ and $25.68\pm0.2^\circ$.

Claim 3. The Crystal Form A according to claim 1 or 2, wherein the Crystal Form A has a Differential Scanning Calorimetry curve (DSC) having one onset point of endothermic peak at $34.95\pm3^\circ\text{C}$, $174.75\pm3^\circ\text{C}$ and $219.12\pm3^\circ\text{C}$, respectively.

Claim 4. The Crystal Form A according to claim 1 or 2, wherein the Crystal Form A has a Thermogravimetric Analysis curve (TGA), wherein the weight loss at $70.33\pm3^\circ\text{C}$ is 0.7367%, and the weight loss at $209.42\pm3^\circ\text{C}$ is 3.123%.

Claim 5. A Crystal Form B a compound of formula (I), wherein the Crystal Form B has an X-ray powder diffraction (XRPD) pattern having characteristic diffraction peaks at the following 2θ angles: $5.58\pm0.2^\circ$, $12.44\pm0.2^\circ$ and $22.16\pm0.2^\circ$



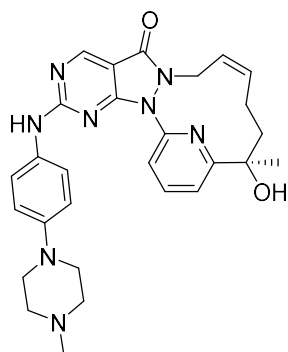
Formula (I).

Claim 6. The Crystal Form B according to claim 5, wherein the Crystal Form B has an X-ray powder diffraction pattern having characteristic diffraction peaks at the following 2θ angles: $5.58\pm0.2^\circ$, $11.71\pm0.2^\circ$, $12.44\pm0.2^\circ$, $14.48\pm0.2^\circ$, $15.13\pm0.2^\circ$, $18.64\pm0.2^\circ$, $22.16\pm0.2^\circ$ and $26.33\pm0.2^\circ$.

Claim 7. The Crystal Form B according to claim 5 or 6, wherein the Crystal Form B has a Differential Scanning Calorimetry curve (DSC) having one onset point of endothermic peak at $42.88\pm3^\circ\text{C}$, $198.79\pm3^\circ\text{C}$ and $222.36\pm3^\circ\text{C}$, respectively.

Claim 8. The Crystal Form B according to claim 5 or 6, wherein the Crystal Form B has a Thermogravimetric Analysis curve (TGA), wherein the weight loss at $64.21\pm3^\circ\text{C}$ is 3.265%; and the weight loss at $243.05\pm3^\circ\text{C}$ is 1.516%.

Claim 9. A Crystal Form C a compound of formula (I), wherein the Crystal Form C has an X-ray powder diffraction (XRPD) pattern having characteristic diffraction peaks at the following 2θ angles: $5.05\pm0.2^\circ$, $5.58\pm0.2^\circ$ and $12.44\pm0.2^\circ$



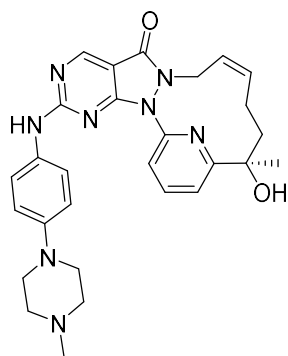
Formula (I).

Claim 10. The Crystal Form C according to claim 9, wherein the Crystal Form C has an X-ray powder diffraction pattern having characteristic diffraction peaks at the following 2θ angles: $5.05\pm0.2^\circ$, $5.58\pm0.2^\circ$, $12.44\pm0.2^\circ$, $15.91\pm0.2^\circ$, $16.68\pm0.2^\circ$, $17.61\pm0.2^\circ$, $22.19\pm0.2^\circ$ and $26.37\pm0.2^\circ$.

Claim 11. The Crystal Form C according to claim 9 or 10, wherein the Crystal Form C has a Differential Scanning Calorimetry curve (DSC) having one onset point of endothermic peak at $37.06\pm3^\circ\text{C}$, $189.16\pm3^\circ\text{C}$ and $218.61\pm3^\circ\text{C}$, respectively.

Claim 12. The Crystal Form C according to claim 9 or 10, wherein the Crystal Form C has a Thermogravimetric Analysis curve (TGA), wherein the weight loss at $64.98\pm3^\circ\text{C}$ is 2.211%; and the weight loss at $224.71\pm3^\circ\text{C}$ is 1.127%.

Claim 13. A Crystal Form D of a compound of formula (I), wherein the Crystal Form D has an X-ray powder diffraction (XRPD) pattern having characteristic diffraction peaks at the following 2θ angles: $5.22\pm0.2^\circ$, $15.99\pm0.2^\circ$ and $16.57\pm0.2^\circ$



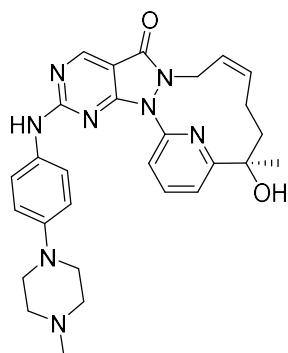
Formula (I).

Claim 14. The Crystal Form D according to claim 13, wherein the Crystal Form D has an X-ray powder diffraction pattern having characteristic diffraction peaks at the following 2θ angles: $5.22\pm0.2^\circ$, $15.18\pm0.2^\circ$, $15.99\pm0.2^\circ$, $16.57\pm0.2^\circ$, $17.08\pm0.2^\circ$, $18.60\pm0.2^\circ$, $21.22\pm0.2^\circ$ and $21.89\pm0.2^\circ$.

Claim 15. The Crystal Form D according to claim 13 or 14, wherein the Crystal Form D has a Differential Scanning Calorimetry curve (DSC) having one onset point of endothermic peak at $56.07\pm3^\circ\text{C}$, $193.93\pm3^\circ\text{C}$ and $216.54\pm3^\circ\text{C}$, respectively.

Claim 16. The crystal Form D according to claim 13 or 14, wherein the Crystal Form D has a Thermogravimetric Analysis curve (TGA), wherein the weight loss at $79.35\pm3^\circ\text{C}$ is 1.977%; and the weight loss at $223.66\pm3^\circ\text{C}$ is 1.589%.

Claim 17. A Crystal Form E of a compound of formula (I), wherein the Crystal Form E has an X-ray powder diffraction (XRPD) pattern having characteristic diffraction peaks at the following 2θ angles: $8.65\pm0.2^\circ$, $14.22\pm0.2^\circ$ and $24.58\pm0.2^\circ$.



Formula (I).

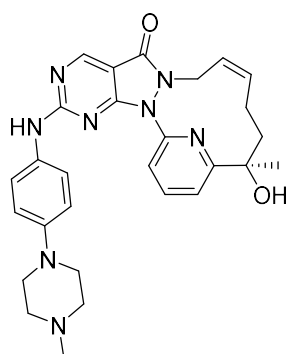
Claim 18. The Crystal Form E according to claim 17, wherein the Crystal Form E has an X-ray powder diffraction pattern having characteristic diffraction peaks at the following 2θ angles: $8.65\pm0.2^\circ$, $11.41\pm0.2^\circ$, $13.13\pm0.2^\circ$, $14.22\pm0.2^\circ$, $17.35\pm0.2^\circ$, $18.34\pm0.2^\circ$, $20.39\pm0.2^\circ$, $20.94\pm0.2^\circ$ and $24.58\pm0.2^\circ$.

Claim 19. The Crystal Form E according to claim 17 or 18, wherein the Crystal Form E has a Differential

Scanning Calorimetry curve (DSC) having one onset point of endothermic peak at $121.57\pm 3^{\circ}\text{C}$, $197.26\pm 3^{\circ}\text{C}$ and $217.23\pm 3^{\circ}\text{C}$, respectively; and one peak value of exothermic peak at $168.31\pm 3^{\circ}\text{C}$ and $212.95\pm 3^{\circ}\text{C}$, respectively.

Claim 20. The Crystal Form E according to claim 17 or 18, wherein the Crystal Form E has a Thermogravimetric Analysis curve (TGA), wherein the weight loss at $143.31\pm 3^{\circ}\text{C}$ is 6.775%; and the weight loss at $213.62\pm 3^{\circ}\text{C}$ is 0.3184%.

Claim 21. A Crystal Form F of a compound of formula (I), wherein the Crystal Form F has an X-ray powder diffraction (XRPD) pattern having characteristic diffraction peaks at the following 2θ angles: $5.06\pm 0.2^{\circ}$, $15.91\pm 0.2^{\circ}$ and $16.68\pm 0.2^{\circ}$



Formula (I).

Claim 22. The Crystal Form F according to claim 21, wherein the Crystal Form F has an X-ray powder diffraction pattern having characteristic diffraction peaks at the following 2θ angles: $5.06\pm 0.2^{\circ}$, $8.34\pm 0.2^{\circ}$, $10.98\pm 0.2^{\circ}$, $15.13\pm 0.2^{\circ}$, $15.91\pm 0.2^{\circ}$, $16.68\pm 0.2^{\circ}$, $17.63\pm 0.2^{\circ}$ and $18.87\pm 0.2^{\circ}$.

Claim 23. The Crystal Form F according to claim 21 or 22, wherein the Crystal Form F has a Differential Scanning Calorimetry curve (DSC) having one onset point of endothermic peak at $48.69\pm 3^{\circ}\text{C}$ and $225.26\pm 3^{\circ}\text{C}$, respectively.

Claim 24. The Crystal Form F according to claim 21 or 22, wherein the Crystal Form F has a Thermogravimetric Analysis curve (TGA), wherein the weight loss at $100\pm 3^{\circ}\text{C}$ is 3.404%.

Claim 25. Use of the Crystal Form A according to any one of claims 1-4, the Crystal Form B according to any one of claims 5-8, the Crystal Form C according to any one of claims 9-12, the Crystal Form D according to any one of claims 13-16, the Crystal Form E according to any one of claims 17-20, or the Crystal Form F according to any one of claims 21-24 for the manufacture of a medicament for treating a Wee1-related disease, wherein the Wee1-related disease comprises colon cancer or pancreatic cancer.

Claim 26. A process for preparing a Crystal Form F of a compound of formula (I) according to any one of claims 21-24, comprising,

(a) adding the compound of formula (I) into an alcohol solvent with stirring which is heated in an oil bath

to 55~65°C;

- (b) stirring at 47°C-53°C for 72 h;
- (c) stopping heating and keeping stirring with the temperature spontaneously lowered for 1 h to 27°C;
- (d) allowing standing for 18 h, filtering and rinsing the filter cake with methanol;
- (e) drying under vacuum at 60°C for 48 h.

Claim 27. The preparing process according to claim 26, wherein, the alcohol solvent is methanol.

Claim 28. The Crystal Form A according to any one of claims 1-4, the Crystal Form B according to any one of claims 5-8, the Crystal Form C according to any one of claims 9-12, the Crystal Form D according to any one of claims 13-16, the Crystal Form E according to any one of claims 17-20, or the Crystal Form F according to any one of claims 21-24 for use in treating a disease.