

ABSTRACT

The present invention discloses a drying apparatus and method for drying a substrate using supercritical fluid. The drying apparatus comprises an upper chamber, a lower chamber, a substrate tray, a lifting mechanism, a connecting assembly and a locking mechanism. The lower chamber is disposed below the upper chamber. The substrate tray is disposed on the lower chamber and is used for carrying the substrate. The lifting mechanism is disposed below the lower chamber and is used for driving the lower chamber to move in the vertical direction, so that the lower chamber is completely contacted with the upper chamber. The connecting assembly is connected to the upper chamber and the lower chamber. The locking mechanism is used to lock or loosen the connecting assembly when the lower chamber is in full contact with the upper chamber. After the locking mechanism locks the connecting assembly and the lifting mechanism withdraws from the lower chamber, the locking mechanism and the connecting assembly automatically contact due to the action of gravity of the chamber, and the upper chamber and the lower chamber are closed to form a sealed chamber. The present invention has the advantage of enhancing the pressure resistance of the sealed chamber.