

ABSTRACT

The present application relates to a supercritical drying-medium recovery system and a semiconductor wafer drying apparatus. The supercritical drying-medium recovery system comprises a separation device, and the separation device comprises a condensate line and a first chamber. A liquid discharge port is provided on the lower side wall of the condensate line, and the liquid discharge port is in communication with the first chamber. The inlet of the condensate line is configured to receive the drying medium containing an organic solvent, and the outlet of the condensate line is configured to discharge the separated drying medium for recovery. Wherein, the condensate line is configured to condense the organic solvent in the drying medium containing the organic solvent, so that the organic solvent is condensed into a liquid state and flows from the liquid discharge port into the first chamber. The present application solves the problem in the related art of how to recover the carbon dioxide during wafer drying and achieves carbon dioxide recovery during wafer drying.