HEAT AND COOLING TREATMENT APPARATUS AND SUBSTRATE PROCESSING SYSTEM

Abstract of the Disclosure

The present invention is an apparatus for performing heat and cooling treatments for a substrate includes: a heating table for mounting the substrate thereon to perform the heat treatment for the substrate; a cooling table for mounting the substrate thereon to perform the cooling treatment for the substrate; a waiting table for allowing the substrate to wait; a carrying mechanism for carrying the substrate between the heating table, the cooling table, and the waiting table; and airflow formation means for forming airflow in a space in which the heating table, the cooling table, and the waiting table are arranged. Since the substrate is mounted on the cooling table during the cooling treatment, the cooling treatment can be performed for the entire substrate uniformly. Thus, the apparatus, in which precise cooling treatment is performed without delay, is excellent in time management on the heat and cooling treatments. Therefore, it is possible to make in-plane temperature distribution of the substrate uniform and to make the cooling effects on substrates the same even when the cooling treatment are performed for a plurality of substrates. Further, the apparatus can conduct the shift to the precise cooling treatment more promptly than before, thereby preventing deformation and deterioration in reproduction of a pattern.

Fig. 1