ABSTRACT

METHOD OF DETERMINING A CENTRED POSITION OF A SEMICONDUCTOR SUBSTRATE IN AN ANNEALING FURNACE, DEVICE FOR THE HEAT TREATMENT OF SEMICONDUCTOR SUBSTRATES AND METHOD FOR CALIBRATING SUCH A DEVICE

Method of determining a centred position of a semiconductor substrate placed in an annealing furnace (30), in a starting position, on a retention support (20) in the furnace, comprising the following steps:
- heat treatment of the substrate in its starting position, resulting in the formation of an oxide layer (11) on the substrate;
- measurement of the thickness of the substrate at several points on the oxidized surface of the substrate; and
- determination, on the basis of the measurement step and the starting position, of a centred position of the substrate on the support (20).

Method of calibrating a device (100) for the heat treatment of semiconductor substrates, the device (100) comprising means (40) for positioning semiconductor substrates on a retention support (20) in a furnace (30), the positioning means (40) comprising a memory unit (42), intended to store positioning parameters (PP), and an actuator (41) capable of positioning a substrate on the support (20) according to positioning parameters (PP) stored in the memory unit (42), comprising the following steps:
- positioning by the actuator (41) of a test substrate (T) on the support (20) in a starting position according to predetermined starting parameters (PP1);
- application of the steps of the method of determining a centred position to the test substrate (T);
- determination of centring parameters (PP2) corresponding to the centred position of the test substrate (T); and
- storage of the centring parameters (PP2) in the memory unit (42).

Figure 5