WHAT IS CLAIMED IS:

1. A substrate processing apparatus~~hot plate~~ comprising a heating chamber, heating lamps and a substrate support device opposed to the heating lamps are provided in the heating chamber, a hot plate is provided between the heating lamps and the substrate support device, characterized in that, said hot plate comprising a central sub hot plate and at least one outer ring sub hot plate located around the central sub hot plate, wherein thermal insulation parts are provided between the central sub hot plate and the outer ring sub hot plate and between two adjacent outer sub hot plates, said thermal insulation parts is used to prevent or reduce the heat conduction between adjacent sub hot plates, so as to apply a partitioned heating to the substrate.

2. The substrate processing apparatus~~hot plate~~ according to claim 1, characterized in that, the thermal insulation parts comprise annular grooves and/or gaps between adjacent sub hot plates.

3. The substrate processing apparatus~~hot plate~~ according to claim 2, characterized in that, the thermal insulation parts comprise thermal insulation fillers filled in the annular grooves and/or gaps.

4. The substrate processing apparatus~~hot plate~~ according to claim 3, characterized in that, said thermal insulation fillers include quartz, ceramic insulation, and heat insulation rubber.

5. The substrate processing apparatus~~hot plate~~ according to claim 2, characterized in that, a flange is provided at the edge of at least one of two adjacent sub hot plates; the adjacent sub hot plates are connected by means of the flange and the annular groove is formed at the location of the flange.

6. The substrate processing apparatus~~hot plate~~ according to any one of claims 1-5, characterized in that, the materials of the central sub hot plate and the outer ring sub hot plate include graphite and aluminum.

7. The substrate processing apparatus~~hot plate~~ according to claim 6, characterized in that, the materials of the central sub hot plate and the outer ring sub hot plate are made of aluminum material, and the surfaces thereof are sulfated hard anodized.

8. The substrate processing apparatus~~hot plate~~ according to any one of claims 1-5, characterized in that, the number of the outer ring sub hot plate is at least two, and said at least two outer ring sub hot plate are socketed together.

~~9. A substrate processing apparatus comprising a heating chamber, heating lamps and the substrate support device opposed to the heating lamps are provided in the heating chamber, characterized in that, the hot plate according to any one of claims 1-8 is provided between the heating lamps and the substrate support device so as to apply a partitioned heating to the substrate.~~

~~10~~9. The substrate processing apparatus according to claim ~~9~~1, characterized in that, the substrate processing apparatus comprises a physical vapor deposition device.