WHAT IS CLAIMED IS:

1. A heater divided into a plurality of control zones, the heater comprising:

a heat generator installed for each of the control zones and configured to raise an internal temperature of a reaction tube by heat generation; and

a circuit configured to equalize resistance values in the respective control zones,

wherein the circuit is a parallel circuit and is configured such that an output variable element is installed in one or more of output circuits constituting the parallel circuit.

2. The heater according to Claim 1, wherein the output variable element is at least one selected from the group of a resistor, a thyristor, and an IGBT.

3. The heater according to Claim 1, wherein two or more of the output circuits are arranged and wired in the plurality of control zones.

4. The heater according to Claim 1, wherein the heat generator is installed individually for each of the output circuits.

5. A temperature control system, comprising:

a heater including:

a heat generator installed for each of a plurality of control zones and configured to raise an internal temperature of a reaction tube by heat generation in each of the control zones; and

a circuit configured to equalize resistance values in the respective control zones,

wherein the circuit is a parallel circuit and is configured such that an output variable element is installed in one or more of output circuits constituting the parallel

~~circuit; and~~

~~a temperature controller configured to control the internal temperature of the reaction tube by adjusting electric power supplied to the heat generator.~~

~~6. The system according to Claim 5, wherein the temperature controller is further configured to output a different electric power for each of the control zones.~~

~~7. The system according to Claim 5, wherein the temperature controller is further configured to output different electric powers in a vertical direction in each of the control zones.~~

~~8. The system according to Claim 5, wherein the temperature controller is further configured to output a different electric power for each of the output circuits constituting the parallel circuit in the control zones.~~

~~9. The system according to Claim 5, wherein the temperature controller is further configured to output electric power according to a resistance value of each of the output circuits constituting the parallel circuit in the control zones.~~

~~10. The system according to Claim 9, wherein the temperature controller is further configured to make electric power output to an output circuit, among the output circuits constituting the parallel circuit, in which the output variable element is not installed larger than electric power output to an output circuit, among the output circuits constituting the parallel circuit, to which the output variable element is connected.~~

~~11. The system according to Claim 5, further comprising:~~

~~an adjuster configured to adjust electric power output from an output circuit, among the output circuits constituting the parallel circuit, to which the output variable element is connected,~~

wherein the adjuster is further configured to output a different electric power for each of the output circuits.

12. The system according to Claim 11, further comprising:

a temperature control calculator configured to perform temperature control calculation such that a preset temperature and a temperature detected by a temperature detector match,

wherein the adjuster is configured to determine an output to each of the output circuits based on a ratio of control signals calculated by the temperature control calculator.

13. A processing apparatus, comprising

a heater including:

a heat generator installed for each of a plurality of control zones and configured to raise an internal temperature of a reaction tube by heat generation in each of the control zones; and

a circuit configured to equalize resistance values in the respective control zones, wherein the circuit is a parallel circuit and is configured such that an output variable element is installed in one or more of output circuits constituting the parallel circuit.

14. A method of manufacturing a semiconductor device, comprising

processing a substrate disposed in a reaction tube while maintaining an internal temperature of the reaction tube at a predetermined temperature, while controlling a heater including:

a heat generator installed for each of a plurality of control zones and configured to raise the internal temperature of the reaction tube by heat generation; and

a circuit configured to equalize resistance values in the respective control zones,

~~wherein the circuit is a parallel circuit and is configured such that an output variable element is installed in one or more of output circuits constituting the parallel circuit.~~

1. A heater divided into a plurality of control zones, each of the individual control zones including an output circuit, the heater comprising:

at least one heat generator installed for each of the control zones and configured to raise an internal temperature of a reaction tube by heat generation; and

an output variable element installed in any one of circuits constituting a parallel circuit, which is the output circuit for a control zone located in a substrate region among the individual control zones, and configured to regulate electrical power outputted from the at least one heat generator disposed at the circuits constituting the parallel circuit for the control zone located in the substrate region.

2. The heater according to Claim 1, wherein the at least one heat generator includes a plurality of heat generators installed for the control zone located in the substrate region.

3. The heater according to Claim1, wherein the output circuit includes two or more parallel wirings in the control zone located in the substrate region.

4. The heater according to Claim 1, wherein the output circuit is a resistance circuit.

5. The heater according to Claim 1, wherein the output variable element is at least one selected from the group of a resistor, a thyristor, and an IGBT.

6. A temperature control system, comprising:

a heater divided into a plurality of control zones, each of the individual control

zones including an output circuit, the heater including:

a heat generator installed for each of the control zones and configured to raise an internal temperature of a reaction tube by heat generation; and

an output variable element installed in any one of circuits constituting a parallel circuit, which is the output circuit of a control zone located in a substrate region among the individual control zones, and configured to regulate electrical power outputted from the heat generator disposed at the circuits constituting the parallel circuit for the control zone located in the substrate region; and

a temperature controller at least installed for each of the control zones and configured to control the heater by regulating electric power supplied to the heat generator based on a temperature detected by a detector installed at the heat generator.

7. The system according to Claim 6, wherein the temperature controller is further configured to output different electric power for each of the control zones.

8. The system according to Claim 6, further comprising an adjuster configured to adjust electric power outputted from a circuit to which the output variable element is connected,

wherein the adjuster is configured to be capable of outputting different electric power for each circuit constituting the parallel circuit.

9. The system according to Claim 8, further comprising a temperature control calculator configured to perform temperature control calculation such that a temperature detected by a temperature detector matches a preset temperature,

wherein the adjuster is configured to determine an output to the circuit constituting the parallel circuit based on a ratio of control signal calculated by the

temperature control calculator.

10. A processing apparatus, at least comprising:

a heater divided into a plurality of control zones, each of the individual control zones including an output circuit, the heater including:

a heat generator installed for each of the control zones and configured to raise an internal temperature of a reaction tube by heat generation; and

an output variable element installed in any one of circuits constituting a parallel circuit, which is the output circuit of a control zone located in a substrate region among the individual control zones, and configured to regulate electrical power outputted from the heat generator disposed at the circuits constituting the parallel circuit for the control zone located in the substrate region.

11. The processing apparatus according to Claim 10, wherein the heater is configured to output different electrical power in a vertical direction of the control zone located in the substrate region

12. The processing apparatus according to Claim 10, wherein the heater is configured to output different electrical power for each circuit constituting the parallel circuit.

13. The processing apparatus according to Claim 10, wherein the heater is configured to output electrical power according to a resistance value of each circuit constituting the parallel circuit

14. The processing apparatus according to Claim 10, wherein the heater is configured such that electrical power outputted to a circuit in which the output

variable element is not installed is larger than electrical power outputted to a circuit to which the output variable element is connected.

15. The processing apparatus according to Claim 10, wherein the output variable element is at least one selected from the group of a resistor, a thyristor, and an IGBT.

16. The processing apparatus according to Claim 10, wherein the output variable element is installed for each circuit constituting the parallel circuit, and

wherein the processing apparatus comprises a controller configured to input a different control signal to the output variable element.

17. The processing apparatus according to Clam 10, wherein the output variable element is installed for each circuit constituting the parallel circuit, and

wherein the processing apparatus is configured such that electrical power outputted from each output variable element is capable of being regulated according to a parameter.

18. The processing apparatus according to Clam 17, wherein the parameter is changeable according to a preset temperature.

19. The processing apparatus according to Claim 17, further comprising a controller configured to input the same control signal to the output variable element.

20. A method of manufacturing a semiconductor device, comprising

processing a substrate disposed in a reaction tube by heating the substrate by a heater divided into a plurality of control zones, each of the individual control zones including an output circuit, the heater including:

a heat generator installed for each of the control zones and

configured to raise the internal temperature of the reaction tube by heat generation; and

an output variable element installed in any one of circuits constituting a parallel circuit, which is the output circuit of a control zone located in a substrate region among the plurality of control zones, and configured to regulate electrical power outputted from the heat generator disposed at the circuits constituting the parallel circuit for the control zone located in the substrate region.