CLAIMS

1. A method for polishing a workpiece, in which a front surface and a back surface of the workpiece is simultaneously polished by holding a workpiece in a carrier plate having one or more retention openings each for retaining a workpiece, at least one of the retention openings being eccentrically disposed, and by rotating at least the carrier plate between an upper polishing plate and a lower polishing plate on each of which a polishing pad is pasted, with polishing slurry being supplied,

wherein a temperature of the carrier plate is measured, and amount of polishing removal of the workpiece is controlled based on change in the measured temperature of the carrier plate.

2. The method for polishing a workpiece, according to Claim 1, wherein the amount of polishing removal of the workpiece is controlled based on a change of phase calculated from the change in the temperature of the carrier plate.

3. The method for polishing a workpiece, according to Claim 1, wherein the amount of polishing removal of the workpiece is controlled based on a change of amplitude calculated from the change in the temperature of the carrier plate.

4. The method for polishing a workpiece, according to Claim 1, wherein the amount of polishing removal of the workpiece is controlled based on both a change of phase and a change of amplitude calculated from the change in the temperature of the carrier plate.

5. The method for polishing a workpiece, according to any one of Claims 1 to 4, wherein the polishing is performed with an outer edge of the carrier plate being protruded outward in a radial direction from the edges of the upper and lower polishing plates, and a temperature of the protruded outer edge of the carrier plate is measured with an optical temperature measurement means.

6. An apparatus for polishing both surfaces of a workpiece, including: a rotatable carrier plate in which one or more retention openings each for retaining a workpiece to be polished is formed, at least one of the retention openings being eccentrically disposed; and a lower polishing plate and an upper polishing plate paired with the lower polishing plate for carrying the carrier plate, comprising:

a means for measuring a temperature of the carrier plate; and

a control means for controlling amount of polishing removal of the wafer in accordance with the measured temperature.

7. The apparatus for polishing a workpiece, according to Claim 6, wherein the temperature measurement means is an optical measurement means.

CLAIMS

1. A method for polishing a workpiece, in which a front surface and a back surface of the workpiece is simultaneously polished by holding a workpiece in a carrier plate having one or more retention openings each for retaining a workpiece, at least one of the retention openings being eccentrically disposed, and by rotating at least the carrier plate between an upper polishing plate and a lower polishing plate on each of which a polishing pad is pasted, with polishing slurry being supplied,

wherein a temperature of the carrier plate is measured, and amount of polishing removal of the workpiece is controlled based on a change of phase calculated from the change in the temperature of the carrier plate.

2. A method for polishing a workpiece, in which a front surface and a back surface of the workpiece is simultaneously polished by holding a workpiece in a carrier plate having one or more retention openings each for retaining a workpiece, at least one of the retention openings being eccentrically disposed, and by rotating at least the carrier plate between an upper polishing plate and a lower polishing plate on each of which a polishing pad is pasted, with polishing slurry being supplied,

wherein a temperature of the carrier plate is measured, and amount of polishing removal of the workpiece is controlled based on a change of amplitude calculated from the change in the temperature of the carrier plate.

3. A method for polishing a workpiece, in which a front surface and a back surface of the workpiece is simultaneously polished by holding a workpiece in a carrier plate having one or more retention openings each for retaining a workpiece, at least one of the retention openings being eccentrically disposed, and by rotating at least the carrier plate between an upper polishing plate and a lower polishing plate on each of which a polishing pad is pasted, with polishing slurry being supplied,

wherein a temperature of the carrier plate is measured, and amount of polishing removal of the workpiece is controlled based on both a change of phase and a change of amplitude calculated from the change in the temperature of the carrier plate.

4. The method for polishing a workpiece, according to any one of Claims 1 to 3, wherein the polishing is performed with an outer edge of the carrier plate being protruded outward in a radial direction from the edges of the upper and lower polishing plates, and a temperature of the protruded outer edge of the carrier plate is measured with an optical temperature measurement means.

5. An apparatus for polishing both surfaces of a workpiece, including: a rotatable carrier plate in which one or more retention openings each for retaining a workpiece to be polished is formed, at least one of the retention openings being eccentrically disposed; and a lower polishing plate and an upper polishing plate paired with the lower polishing plate for carrying the carrier plate, comprising:

a temperature measurement means for measuring a temperature of the carrier plate; and

a control means for controlling amount of polishing removal of the workpiece based on a change of phase calculated from the change in the temperature of the carrier plate.

6. An apparatus for polishing both surfaces of a workpiece, including: a rotatable carrier plate in which one or more retention openings each for retaining a workpiece to be polished is formed, at least one of the retention openings being eccentrically disposed; and a lower polishing plate and an upper polishing plate paired with the lower polishing plate for carrying the carrier plate, comprising:

a temperature measurement means for measuring a temperature of the carrier plate; and

a control means for controlling amount of polishing removal of the workpiece based on a change of amplitude calculated from the change in the temperature of the carrier plate.

7. An apparatus for polishing both surfaces of a workpiece, including: a rotatable carrier plate in which one or more retention openings each for retaining a workpiece to be polished is formed, at least one of the retention openings being eccentrically disposed; and a lower polishing plate and an upper polishing plate paired with the lower polishing plate for carrying the carrier plate, comprising:

a temperature measurement means for measuring a temperature of the carrier plate; and

a control means for controlling amount of polishing removal of the workpiece based on both a change of phase and a change of amplitude calculated from the change in the temperature of the carrier plate.

8. The apparatus for polishing a workpiece, according to any one of Claims 5 to 7, wherein an outer edge of the carrier plate is protruded outward in a radial direction from the edges of the upper and lower polishing plates.

9. The apparatus for polishing a workpiece, according to any one of Claims 5 to 7, wherein the temperature measurement means is an optical measurement means.

10. The apparatus for polishing a workpiece, according to any one of Claims 5 to 7, wherein an outer edge of the carrier plate is protruded outward in a radial direction from the edges of the upper and lower polishing plates, and the temperature measurement means is an optical measurement means.