CLAIMS

[Claim 1] A substrate processing method of processing a plurality of substrates, comprising:

polishing a bevel portion of each of the plurality of substrates by a polishing tool such that slope surfaces of bevel portions of the plurality of substrates have the same slope angle; and

performing CMP processing of a flat portion of each of the plurality of substrates whose bevel portions have been polished.

[Claim 2] The substrate processing method according to claim 1, wherein polishing of the bevel portion of each of the plurality of substrates comprises pressing the polishing tool against a slope surface of the bevel portion of each of the plurality of substrates with the same angle of inclination of the polishing tool with respect to the flat portions of the plurality of substrates while each substrate is being rotated.

[Claim 3] The substrate processing method according to claim 1 or 2, further comprising:

measuring a shape of a bevel portion of at least one of the plurality of substrates before polishing of the bevel portions of the plurality of substrates.

[Claim 4] The substrate processing method according to claim 3, further comprising:

determining a polishing condition for the bevel portions of the plurality of substrates based on a measurement result of the shape of the bevel portion.

[Claim 5] The substrate processing method according to claim 3, further comprising:

measuring of a shape of a bevel portion of at least one of the plurality of

substrates after polishing of the bevel portions of the plurality of substrates; and

polishing the bevel portion of the at least one substrate again when a slope angle of the bevel portion of the at least one substrate has not reached a predetermined angle.

[Claim 6] The substrate processing method according to any one of claims 1 to 5, wherein

a bevel-portion polishing module configured to polish the bevel portions, and a CMP module configured to perform the CMP processing are arranged in the same housing, and

polishing of the bevel portion of each substrate and the CMP processing of each substrate are performed successively.

[Claim 7] A substrate processing apparatus for processing a plurality of substrates, comprising:

a bevel-portion polishing module configured to press a polishing tool against a bevel portion of each of the plurality of substrates to polish the bevel portion; and

a CMP module configured to perform CMP processing of a flat portion of each of the plurality of substrates whose bevel portions have been polished,

wherein the bevel-portion polishing module is configured to polish the bevel portions of the plurality of substrates such that slope surfaces of the bevel portions of the plurality of substrates have the same slope angle.

[Claim 8] The substrate processing apparatus according to claim 7, wherein

the bevel-portion polishing module includes a substrate holder configured to hold and rotate each of the plurality of substrates, and

the bevel-portion polishing module is configured to press the polishing tool against a slope surface of the bevel portion of each of the plurality of substrates with the same angle of inclination of the polishing tool with respect to the flat portions of the

plurality of substrates while each substrate is being rotated by the substrate holder.

[Claim 9] The substrate processing apparatus according to claim 7 or 8, further comprising:

a bevel-portion-shape measuring module configured to measure a shape of a bevel portion of at least one of the plurality of substrates.

[Claim 10] The substrate processing apparatus according to claim 9, further comprising:

an operation controller configured to control operations of the bevel-portion-shape measuring module and the bevel-portion polishing module, the operation controller being configured to determine a polishing condition for the bevel portions of the plurality of substrates based on a measurement result of the shape of the bevel portion.

[Claim 11] The substrate processing apparatus according to claim 9, wherein

the bevel-portion-shape measuring module is configured to measure a shape of a bevel portion of at least one of the plurality of substrates after polishing of the bevel portions of the plurality of substrates, and

the bevel-portion polishing module is configured to polish the bevel portion of the at least one substrate again when a slope angle of the bevel portion of the at least one substrate has not reached a predetermined angle.

[Claim 12] The substrate processing apparatus according to any one of claims 7 to 11, wherein

the bevel-portion polishing module and the CMP module are arranged in the same housing, and

polishing of the bevel portion of each substrate by the bevel-portion polishing module and the CMP processing of each substrate by the CMP module are performed

successively.

[Claim 13] A substrate processing method of processing a plurality of substrates having respective flat portions and respective bevel portions, the flat portions being surfaces on which CMP processing is to be performed, said method comprising:

polishing each of the bevel portions of the plurality of substrates by a polishing tool such that slope surfaces are formed in the plurality of substrates, the slope surfaces being inclined at the same slope angle with respect to the flat portions and being adjacent to the flat portions; and

performing CMP processing of each of the flat portions adjacent to the slope surfaces of the plurality of substrates after the bevel portions have been polished.

[Claim 14] A substrate processing apparatus for processing a plurality of substrates having respective flat portions and respective bevel portions, the flat portions being surfaces on which CMP processing is to be performed, said substrate processing apparatus comprising:

a bevel-portion polishing module configured to press a polishing tool against each of the bevel portions of the plurality of substrates to polish the bevel portions; and

a CMP module configured to perform CMP processing on each of the flat portions of the plurality of substrates,

wherein the bevel-portion polishing module is configured to polish each of the bevel portions of the plurality of substrates such that slope surfaces are formed in the plurality of substrates, the slope surfaces being inclined at the same slope angle with respect to the flat portions and being adjacent to the flat portions, and

the CMP module is configured to perform CMP processing of each of the flat portions adjacent to the slope surfaces of the plurality of substrates after the bevel portions have been polished.