[CLAIMS]

1. A reaction processing vessel comprising: a substrate formed of resin; and a groove-like channel formed on a main surface of the substrate,

wherein the channel includes a bottom surface and a side surface

wherein the bottom surface and the side surface are connected by a curved surface at a part of the channel,

wherein the channel includes a detection channel that is irradiated with excitation light in order to detect fluorescence from a sample flowing inside the channel, and

wherein the bottom surface in the detection channel is formed on a flat surface parallel to the main surface of the substrate.

2. The reaction processing vessel according to claim 1,

wherein the channel includes a reaction channel for causing a sample flowing inside the channel to develop a predetermined reaction, and

wherein the bottom surface and the side surface are connected by a curved surface in the reaction channel.

3. The reaction processing vessel according to claim 2, wherein the reaction channel includes a serpiginous channel in which a curved channel and a straight channel are combined.

4. The reaction processing vessel according to claim 2 or 3, wherein the opening width of the reaction channel is 0.6 mm to 1.1 mm, and the curvature radius of the curved surface in the reaction channel is 0.2 mm to 0.38 mm.

5. The reaction processing vessel according to claim 4, wherein the depth of the reaction channel is 0.55 mm to 0.95 mm, and the taper angle of the reaction channel is 10° to 30°.

6. The reaction processing vessel according to any one of claims 1 through 5, wherein the detection channel is formed to be a straight channel.

7. The reaction processing vessel according to any one of claims 1 through 6, wherein the substrate includes a gate near the detection channel.

8. The reaction processing vessel according to any one of claims 1 through 6, wherein the substrate includes a gate near the intersection of a hypothetical vertical line that is perpendicular to the detection channel and an end portion of the substrate.

9. The reaction processing vessel according to any one of claims 1 through 6, wherein the substrate includes a gate near the intersection of a hypothetical parallel line obtained by

extending the straight detection channel and an end portion of the substrate.

10. The reaction processing vessel according to any one of claims 1 through 9, wherein the bottom surface width of the detection channel is 0.5 mm to 0.8 mm.

11. The reaction processing vessel according to claim 10, wherein the depth of the detection channel is 0.8 mm to 1.25 mm, and the taper angle of the detection channel is 10° to 30°.