What is claimed is:

1. A film-thickness measuring apparatus, comprising:

a substrate stage configured to support a substrate horizontally;

a rinsing water supply structure configured to supply rinsing water onto an entire surface of the substrate on the substrate stage;

a nozzle having an opening portion capable of contacting or coming close to the surface of the substrate;

a liquid supply line configured to supply a liquid into the nozzle;

a film-thickness measuring head configured to transmit light through the liquid in the nozzle to a measurement area of the surface of the substrate on the substrate stage, produce a spectrum of reflected light from the measurement area, and determine a film thickness of the substrate from the spectrum; and

a cushioning material provided on a distal end of the opening portion of the nozzle,

wherein the cushioning material is formed of the same material as that of a polishing pad which is used for polishing the substrate.

2. The film-thickness measuring apparatus according to claim 1, wherein the nozzle is located above the substrate stage.

3. A film-thickness measuring apparatus, comprising:

a substrate stage configured to support a substrate horizontally;

a rinsing water supply structure configured to supply rinsing water onto an entire surface of the substrate on the substrate stage;

a nozzle having an opening capable of contacting or coming close to the surface of the substrate;

a liquid supply line configured to supply a liquid into the nozzle;

a film-thickness measuring head configured to transmit light through the liquid

in the nozzle to a measurement area of the surface of the substrate on the substrate stage, produce a spectrum of reflected light from the measurement area, and determine a film thickness of the substrate from the spectrum;

a liquid discharge line configured to discharge the liquid that has been supplied into the nozzle; and

a partition wall provided in the nozzle,

wherein the partition wall divides an interior of the nozzle into an introduction space coupled to the liquid supply line and an discharge space coupled to the liquid discharge line.

4. The film-thickness measuring apparatus according to claim 3, wherein a gap exists between the partition wall and the surface of the substrate.

5. The film-thickness measuring apparatus according to claim 3 or 4, wherein the nozzle is located above the substrate stage.

6. A film-thickness measuring apparatus, comprising:

a substrate stage configured to support a substrate horizontally;

a rinsing water supply structure configured to supply rinsing water onto an entire surface of the substrate on the substrate stage;

a nozzle having an opening capable of contacting or coming close to the surface of the substrate;

a liquid supply line configured to supply a liquid into the nozzle;

a film-thickness measuring head configured to transmit light through the liquid in the nozzle to a measurement area of the surface of the substrate on the substrate stage, produce a spectrum of reflected light from the measurement area, and determine a film thickness of the substrate from the spectrum; and

an annular weir provided on a peripheral portion of the surface of the substrate.

7. The film-thickness measuring apparatus according to claim 6, wherein the nozzle is located above the substrate stage.

8. A polishing apparatus, comprising:

a polishing section for polishing a substrate;

a cleaning section for cleaning and drying the substrate; and

a film-thickness measuring apparatus according to any one of claims 1 to 7 for measuring a film thickness of the substrate.