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(54) METHOD AND APPARATUS FOR WASHING SEMICONDUCTOR SUBSTRATE

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PURPOSE: To enhance washing effect by supplying fine bubbles or liquid drops into a washing chemical liquid in a vicinity of a substrate to make them carry and remove metal ions eluted into the chemical liquid for dip washing of semiconductor substrates in a chemical liquid.

CONSTITUTION: After the washing bath top 10a is mounted on the washing bath bottom 10b with a jig 13 with semiconductor substrate 12 installed in the washing bath bottom 10b, a washing liquid is supplied from a piping 14 into the washing bath 10. After the liquid level reaches a datum line 28, a surfactant is supplied from a piping 15 into the washing bath 10. Argon gas from a cylinder 26 passes through a porous plate 11 and reduces to bubbles 29 with a diameter of about 1μm; when passing through the chemical liquid in a vicinity of a substrate 12, they trap impurity metal ions eluted from the substrate and float up. These bubbles are extinguished one after another upon contact with the inner wall of the washing bath top 10a into waste liquid and flow out of an overflow drain 27. After elapse of a given time, supply of surfactant and washing chemical liquid is stopped to discharge the washing chemical liquid with a valve 23 open, and the substrates 12 are dried and taken out.