

ABSTRACT

There is provided a technique that includes: (a) supplying a first gas containing a predetermined element to the substrate; (b) supplying a second gas containing carbon and nitrogen to the substrate; (c) supplying a nitrogen-containing gas activated by plasma to the substrate; (d) supplying an oxygen-containing gas to the substrate; and (e) forming a film containing at least the predetermined element, oxygen, carbon, and nitrogen on the substrate by: performing a cycle a first number of times of two or more, the cycle performing (a) to (d); or performing a cycle once or more, the cycle performing (a) to (d) in this order.

FIG. 5