

ABSTRACT

There is provided a technique, including: (a) forming NH termination on a surface of a substrate by supplying a first reactant containing N and H to the substrate; (b) forming a first SiN layer having SiCl termination formed on its surface by supplying SiCl₄ as a precursor to the substrate to react the NH termination formed on the surface of the substrate with the SiCl₄; (c) forming a second SiN layer having NH termination formed on its surface by supplying a second reactant containing N and H to the substrate to react the SiCl termination formed on the surface of the first SiN layer with the second reactant; and (d) forming a SiN film on the substrate by performing a cycle a predetermined number of times under a condition where the SiCl₄ is not gas-phase decomposed after performing (a), the cycle including non-simultaneously performing (b) and (c).

FIGURE 1