

ABSTRACT

There is provided a technique that includes: (a) supplying a molybdenum-containing gas containing molybdenum and oxygen to a substrate in a process chamber; (b) supplying an additive gas containing hydrogen to the substrate; and (c) supplying a reducing gas containing hydrogen and having a chemical composition different from that of the additive gas to the substrate, wherein at least two of (a), (b), and (c) are performed simultaneously or to partially overlap with each other in time one or more times or (a), (b), and (c) are performed sequentially one or more times to form a molybdenum film on the substrate.

FIGURE 4