

ABSTRACT

METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE, SUBSTRATE PROCESSING APPARATUS AND PROGRAM

According to one aspect thereof, there is provided a method of manufacturing a semiconductor device, including: forming an oxide film containing a predetermined element on a surface of a substrate provided with a pattern formed thereon by repeatedly performing a cycle including: (a) forming a first layer containing the predetermined element by supplying a source gas containing the predetermined element from an outer periphery of the substrate toward the surface; and (b) forming an oxide layer containing the predetermined element by supplying an oxidizing gas from the outer periphery toward the surface, wherein (a) and (b) are performed non-simultaneously. A supply time of the oxidizing gas is selected such that a thickness distribution of the oxide film becomes a predetermined distribution.

Figure 1