

COMPOUND FOR FORMING METAL-CONTAINING FILM, COMPOSITION
FOR FORMING METAL-CONTAINING FILM, AND PATTERNING
PROCESS

ABSTRACT

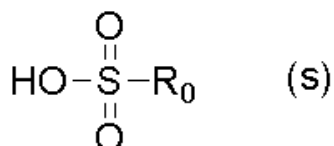
An object of the present invention is to provide: a compound for forming a metal-containing film providing a resist middle layer film by which a good pattern shape can be obtained, and that has a high adhesion to a resist upper layer film and suppresses the collapse of a fine pattern in a fine patterning process during a semiconductor device manufacturing process; a composition for forming a metal-containing film using the compound; and a patterning process using the composition.

This provides:

a compound (A) for forming a metal-containing film, wherein

the compound (A) for forming a metal-containing film is a compound comprising at least one kind of metal atom selected from the group consisting of Ti, Zr, and Hf and a ligand coordinated to the metal atom, and

at least one of the ligands is derived from the organic sulfonic acid compound represented by the following formula (s):



[FIG. 1(A)-1(I)]