

ABSTRACT

Provided is a method of depositing a low-refractive-index film, by which a thin film having uniform composition distribution in the film and having a low refractive index
5 can be formed, a low-refractive-index film deposited by the method of depositing a low-refractive-index film, and furthermore, an antireflection film including the low-refractive-index film. In a method of depositing a low-refractive-index film including depositing a low-refractive-
10 index film composed of $\text{MgF}_2\text{-SiO}_2$ on a substrate 11 by a reactive sputtering method, sputtering deposition is conducted using targets 4A and 4B composed of a sintered body of $\text{MgF}_2\text{-SiO}_2$ by applying an alternating voltage with a frequency in the range of 20 to 90 kHz between the substrate
15 11 and the targets 4A and 4B in an atmosphere of a mixed gas of an inert gas and O_2 .