

ABSTRACT

A piezoelectric thin film and a piezoelectric vibrator are provided that can each be produced with a satisfactory level of piezoelectric properties and a lower level of stress.

The piezoelectric thin film includes crystalline AlN; at least one first element by which Al in the crystalline AlN is partially replaced; and a second element with which the crystalline AlN is doped and which has an ionic radius smaller than that of the first element and larger than that of Al.