

FINITE ELEMENT ANALYSIS OF AlN/Si THIN FILM RESONATOR

F.LAIDOUDI, A. Reddaf, F.Boubenider

Abstract : This paper aim to study the influence of thin film thickness on the surface acoustic wave and reflectivity in AlN/Si resonator with Al electrodes, using finite element analysis. Mode shapes of the device as a function of frequency thickness were presented and results were obtained to optimize the design of SAW thin film devices that can work in high frequency.

Keywords : Surface acoustic wave, thin film resonator, FEM analysis