

S4-1.6

Modelling Potential Distribution in ZnO with Different Thicknesses at GHz Frequencies

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A surface acoustic wave (SAW) device and its behavior at high frequencies is presented. The experiment and the simulations were done on ZnO film and with the software Comsol Multiphysics. The simulations helped us understand the potential distribution in ZnO with three different thicknesses: 150 μm , 200 μm and 300 μm . Based on this results we plotted resonance frequencies for every thickness on a range from 1 Ghz up to 10 Ghz.