

# **offer of the structure of a tunnel non-conductive field effect transistor based on the source and drain with simulation in the Silaveco environment**

behzad Mohammadi\*, Sedigh Ziabari,

**By using two-dimensional simulation based on the non-equilibrium Green's function framework, we simulate the electronic properties of junction less carbon nano tube field effect transistor. The choice the junction-less of transistor of the Carbon Nanotubes field effect is due to the superiority of these transistors compared to others transistors. With the change of impurities in the transistor, and also with the change od the length of source and drain, the performance of device improved. By studying the effect of these changes, simulated the on-current, on-off ratio and ambipolar current. The simulation results show that with decrease of impurity in channel, off current and ambipolar current decreased. Also, the change in source and drain length has been investigated and it has been shown that with decrease of source and drain length, off current decreased and on-**

**Keywords : field effect transistor, carbon nanotubes, off current, Ambipolar current, NEGF**

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