ABSTRACT

A CMOS device includes a p-channel MOS transistor and an n-channel MOS transistor having a structure formed on a (100) surface of a silicon substrate and having a different crystal surface, a high-quality gate insulation film formed on such a structure by a microwave plasma process, and a gate electrode formed thereon, wherein the size and the shape of the foregoing structure is set such that the carrier mobility is balanced between the p-channel MOS transistor and the n-channel MOS transistor.







