

Charge pumping technique has been widely used especially in submicron metal oxide - semiconductor (MOS) devices characterisation due to its reliability and its high accuracy regarding to conventional techniques such as C - V, DLTS... This technique has been greatly improved last years by developing new approaches that are generally used to study the MOS defects. These defects are often fixed trapped charges in the oxide coat at beginning, which may activate other defects such as surface states at the oxide/semiconductor interface after the application of bias - thermal stress, ionising radiation or injection carrier during the fabrication process or the use. This may result in fast ageing of the devices. This ageing is so pronounced when the dimensions are scaled down, which represents the main barrier in nano - electronics field. In this work, the charge pumping current is used in order to determine the effect of temperature on the mean surface states density of submicron MOS devices