

The anodic silica films were produced by anodization of monocrystalline silicon wafers in pure water in an electrolysis cell (P.T.F.E), with a constant current density of  $20 \mu\text{A}/\text{cm}^2$ . All anodizations are performed at room temperature. During oxidation film thickness increases linearly as a function of total charge. Films were annealed under nitrogen atmosphere at various temperatures (600, 800 and 1050 °C). MOS capacitors with anodic oxides were elaborated. This study deals to the determination of interface states density  $S_i/\text{SiO}_2$  and the study of electronic conduction. Using static, quasi-static,  $C(V)$ ,  $G(\omega)$  measurements, we have determined the interface states density, fixed charges density for annealed oxides at various temperatures. The conduction mechanism was determined with  $I(V)$  measurements