

ABSTRACT

**PROCESS FOR TREATING A
SEMICONDUCTOR-ON-INSULATOR STRUCTURE**

The invention relates to a process for treating a semiconductor-on-insulator structure, comprising the following steps:

(i) forming, on the surface of the thin layer (3), a mask (4) defining regions (3a) of the thin layer called exposed regions, and regions (3b) covered by the mask; and

(ii) applying a heat treatment causing at least some of the oxygen in the oxide or oxynitride layer (2) to diffuse through the exposed regions (3a).

Before or during step (ii) a layer (5) of the nitride or oxynitride of the semiconductor of the thin layer (3) is formed on the exposed regions (3a), the thickness of said layer (5) being such that the ratio of the rate of oxygen diffusion through the exposed regions (3a) to that through the regions (3b) covered with the mask (4) is greater than 2.

Figure 4