

**COMPOSITE STRUCTURE COMPRISING A THIN SINGLE-CRYSTAL LAYER ON
A SUPPORT SUBSTRATE MADE OF POLYCRYSTALLINE SILICON CARBIDE,
AND ASSOCIATED MANUFACTURING METHOD**

ABSTRACT

The invention relates to a composite structure for manufacturing microelectronic components comprising a thin single-crystal layer disposed on a support substrate made of polycrystalline silicon carbide, said support substrate having a preferred crystalline orientation, in which:

- a C_{422} texture coefficient is less than 30%; and
- a C_{220} texture coefficient is greater than 60% or the sum of the $C_{111}+C_{222}+C_{511}$ texture coefficients is greater than 70%.

The invention also relates to a method for manufacturing such a composite structure.

Figs. 3c & 4