

ABSTRACT**SEMICONDUCTOR-ON-INSULATOR SUBSTRATE FOR RADIO-FREQUENCY APPLICATIONS**

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The present invention relates to a semiconductor-on-insulator substrate (1) for radio-frequency applications, comprising:

- a silicon carrier substrate (2),
 - an electrically insulating layer (3) arranged on the carrier substrate,
 - 10 - a single-crystal layer (4) arranged on the electrically insulating layer,
- the substrate (1) mainly being characterized in that it further comprises a layer (5) of silicon carbide SiC arranged between the carrier substrate (2) and the electrically insulating layer (3), which has a thickness comprised between 1 nm and 5 nm, the surface (6) of the layer of silicon carbide SiC
- 15 that is on the side of the electrically insulating layer (3) being rough.

Fig. 1