ABSTRACT OF THE DISCLOSURE

COMPOSITE STRUCTURE WITH HIGH HEAT DISSIPATION

Composite structure (40) for applications in optics, optoelectronics or electronics, comprising a support wafer (20), a layer made of a material chosen from among monocrystalline materials and a layer made of a dielectric material (13), characterised in that the materials from which the support wafer (20) is made, the layer (11) made of monocrystalline material and the dielectric layer (13) are chosen, and the thickness of each layer is adjusted, such that the thermal impedance of the composite structure (40) is, between ambient temperature and 600°K, less than or equal to about 1.3 times the thermal impedance of a monocrystalline bulk SiC wafer with the same dimensions as the composite structure.

The invention also relates to a process for manufacturing this composite structure (40).

Figure 2.