

**ABSTRACT**METHOD FOR TREATING A SILICON CARBIDE SUBSTRATE

- 5 The invention relates to a process for treating a substrate (10) comprising at least one surface layer of monocrystalline silicon carbide, said process comprising:
- placing said substrate (10) in a furnace,
  - lowering the pressure in the furnace to a pressure ( $p_F$ ) comprised between 0.01 and 0.5 Pa,
  - 10 • heating the substrate to a temperature ( $T_F$ ) greater than a sublimation temperature of silicon at said pressure ( $p_F$ ), so as to form a carbon layer on the monocrystalline silicon carbide layer by sublimation of silicon from the surface of said monocrystalline silicon carbide layer, and,
  - after the formation of the carbon layer (30), heat treating the substrate at a heat
  - 15 treatment temperature ( $T_T$ ) strictly greater than 1300°C and under a pressure ( $p_T$ ) greater than the pressure ( $p_F$ ) of formation of the carbon layer.

Figure 3A