

- [54] **SUBLIMATION OF SILICON CARBIDE TO PRODUCE LARGE, DEVICE QUALITY SINGLE CRYSTALS OF SILICON CARBIDE**
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- [58] **Field of Search** **148/DIG. 21, 22, 97, 148/148; 118/612, 722; 156/610, 615, DIG. 91, DIG. 64, DIG. 68; 422/247; 437/9, 100, 88, 103, 112, 970, 949, 976**

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[57] **ABSTRACT**

The present invention is a method of forming large device quality single crystals of silicon carbide. The sublimation process is enhanced by maintaining a constant polytype composition in the source materials, selected size distribution in the source materials, by specific preparation of the growth surface of seed crystals, and by controlling the thermal gradient between the source materials and the seed crystal.

28 Claims, 3 Drawing Sheets

