Actual Circumstances as to the Application of Glassy Carbon.

Shigehiko Yamada.*

It was much more difficult to find out any possibility of the "industrial" application of glassy carbon material, comparing with the initial estimate which had been derived from many kinds of data made at laboratories belonging to various fields. At present, the following fields, accepting this material, seem to have been actually settled from such a standpoint. It means that in those uses the essential problems corresponding to each application have been almost solved, though this material has several defects in sharp contrast to its merits in practice.

1; A susceptor for epitaxial growth of high purity silicon as the elements of integrated circuit.

2; A glow electrode having a long life for fine metallurgy.

3; Various precise jigs for metals and ceramics.

4; A plate-heater for electronics- and food-industry.

5; A long crucible to prepare II-IV compounds such as CdS under high pressure.

6; Cone-type crucibles to prepare the big sizes of single crystals of CaF₂.

7; A special shape of plate as a slit of electron beam for the linear accelerator.

8; A protecting tube for thermocouple versus high temperature and violent chemicals.

Unsolved problems in the other application, such as absorption behavior of powder as a filler for gas-chromatography, various shapes of electrode for several kinds of electrochemical analysis and others, might suggest how this material should be further investigated.

^{*} Nagoya Plant of Tokai Electrode Mfg.Co.Ltd., Showa-ku, Nagoya, Japan.