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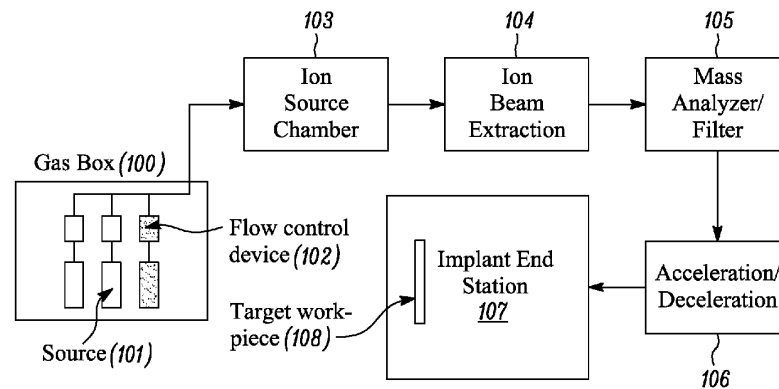
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(54) Title: STORAGE AND DELIVERY OF ANTIMONY-CONTAINING MATERIALS TO AN ION IMPLANTER



Schematic of beamline ion implant system

FIG. 1

(57) Abstract: A novel method, composition and storage and delivery container for using antimony- containing dopant materials are provided. The composition is selected with sufficient vapor pressure to flow at a steady, sufficient and sustained flow rate into an arc chamber as part of an ion implant process. The antimony-containing material is represented by a non-carbon containing chemical formula, thereby reducing or eliminating the introduction of carbon-based deposits into the ion chamber. The composition is stored in a storage and delivery vessel under stable conditions, which includes a moisture-free environment that does not contain trace amounts of moisture. The storage and delivery container is specifically designed to allow delivery of high purity, vapor phase antimony-containing dopant material at a steady, sufficient and sustained flow rate.

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