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(54) Title: ION SOURCE CLEANING IN SEMICONDUCTOR PROCESSING SYSTEMS

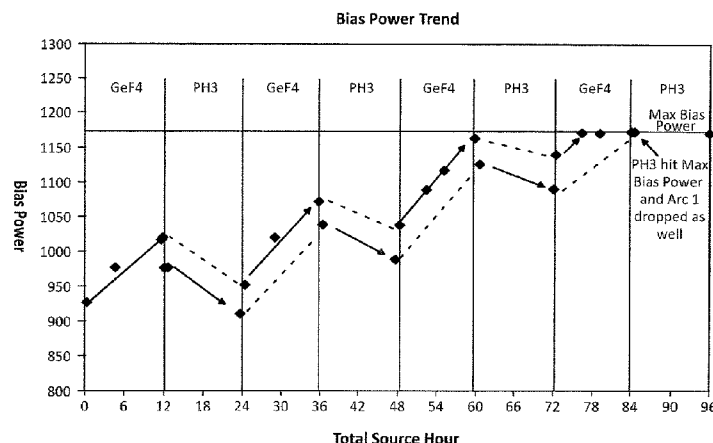


FIG. 7

(57) Abstract: Cleaning of an ion implantation system or components thereof, utilizing temperature and/or a reactive cleaning reagent enabling growth/etching of the cathode in an indirectly heated cathode for an ion implantation system by monitoring the cathode bias power and taking corrective action depending upon compared values to etch or regrow the cathode.

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