

A B S T R A C T

A DOSE-MEASUREMENT DEVICE FOR ION IMPLANTATION IN PLASMA
IMMERSION MODE

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The present invention relates to a dose-measurement device for ion implantation, the device comprising a module CUR for estimating implantation current, a secondary electron detector DSE, and a control circuit CC
10 for estimating the ion current by taking the difference between said implantation current and the current from said secondary electron detector. Furthermore, said high-energy secondary electron detector comprises a collector COL, P supporting exactly three mutually
15 insulated electrodes:

- a first repulsion electrode G1, A1, T1 for repelling charges of a predetermined sign that are to be repelled, said electrode being provided with at least one orifice for passing electrons;
- 20 • a second repulsion electrode G2, A2, T2 for repelling charges of the opposite sign that are to be repelled, said electrode also being provided with at least one orifice for passing electrons; and
- a selection electrode G3, A3, T3, this electrode
25 also being provided with at least one orifice for passing electrons.

Figure 1

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