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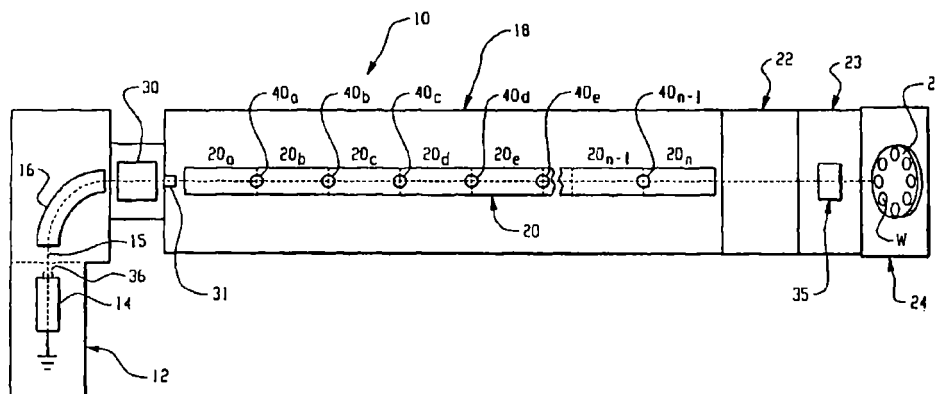
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(54) Title: MECHANISM FOR PREVENTION OF NEUTRON RADIATION IN ION IMPLANTER BEAMLINE



(57) Abstract: A mass analysis magnet assembly (16) is provided for use in an ion implanter (10), comprising: (i) a magnet (44) for mass analyzing an ion beam (15) output by an ion source (14), the magnet providing an interior region (49) through which the ion beam passes; and (ii) at least one strike plate (48) in part forming an outer boundary of the interior region (49). The at least one strike plate is comprised of an isotopically pure carbon-based material. The isotopically pure carbon-based material, preferably by mass greater than 99 % carbon C-12, prevents neutron radiation when impacted by deuterons extracted from the ion source (14). The strike plate (48) may comprise an upper layer (56) of isotopically pure carbon C-12 isotope positioned atop a lower substrate (54).

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