FIRST BEAM OF THE 2.45 GHZ VERSATILE ION SOURCE (VIS) FOR HIGH POWER PROTON ACCELERATORS

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Abstract

The Versatile Ion Source (VIS) is a permanent magnet version of the TRIPS source with a simplified and robust extraction system. It operates up to 80 kV without a bulky high voltage platform, producing multi-mA beams of protons and H^2+. The description of the source design and the preliminary performance will be presented. An outline of the forthcoming developments is given, with particular care to the use of a low loss dc break and to the use of a travelling wave tube amplifier to get an optimum matching between the microwave generator and the plasma.

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