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Development of a novel low power microwave proton ion source for Van de Graaff accelerator

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Abstract content
 (Max 300 words)

A novel low-power microwave ion source for the production of protons in Van de Graaff accelerator laboratory has been developed. The main advantages of the source are its simple construction, its low power consumption, the small number of parameters that have to be adjusted during operation, and the fact that the discharge starts easily and no filament or cooling system are required. Furthermore this source can be operated with a low cost solid state microwave generator. The construction, operational conditions and experimental results of the source are described. The results of this novel ion source are then compared with that of douplasmatron ion source because of its application in the Van de Graaff accelerator.

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