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## **Maintenance of J-PARC RF-Driven H<sup>-</sup> Ion Source**

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The Japan Proton Accelerator Research Complex (J-PARC) cesiated rf-driven H<sup>-</sup> ion source (IS) [1-3], whose requirements are a peak beam intensity of 60mA within normalized emittances of  $1.5\pi\text{mm}\cdot\text{mrad}$  both horizontally and vertically, a flat top beam duty factor of 1.25% ( $500\mu\text{s}\times 25\text{Hz}$ ) and a life-time of longer than 1month, has been successfully operated for about one year. The maintenances of four plasma chambers with internal-rf-antennas, which were developed at the Spallation Neutron Source (SNS) [4], will be presented in this paper. The J-PARC-IS was successfully operated with the antennas, which were classified by pre-conditionings [1]. The proper pre-conditioning procedure to avoid unnecessary antenna failures and the beam performance of each plasma chamber will be also presented.

### **References**

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