

技术及应用

## EAST ICRF天线真空馈口电特性评估

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**摘要** 本文对EAST ICRF天线真空馈口进行了相关的电特性分析, 获得了真空馈口电场分布、电势分布, 以及电压驻波比随加热频率的变化情况, 分析结果验证了真空馈口的可行性和合理性, 并为真空馈口电特性评估提供理论依据。另外, 在相同条件下, 运用相同的方法对一种新型结构的真空馈口进行了相同的电特性分析, 分析结果验证了新型结构真空馈口的优越性。

关键词 [EAST](#) [ICRF天线](#) [真空馈口](#) [电特性](#)

分类号

## Electrical Characteristic Assessment of Vacuum Feedthrough of EAST ICRF Antenna

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**Abstract** The electrical analysis was carried out for the vacuum feedthrough of EAST ICRF antenna. The electric field distribution, the electric potential distribution as well as the voltage standing wave ratio (VSWR) varying with the heating frequencies were obtained. Results of analysis demonstrate the design feasibility and rationality of the vacuum feedthrough, and provide a theoretical basis for assessing the electric characteristic of the vacuum feedthrough. In addition, the identical methods were applied to perform the electrical characteristic analysis for a new structure of the vacuum feedthrough under the same conditions. Results of analysis demonstrate that the new structure of vacuum feedthrough is better than the original structure of vacuum feedthrough.

**Key words** [EAST](#) [ICRF](#) [antenna](#) [vacuum](#) [feedthrough](#) [electrical](#) [characteristic](#)

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