

研究简报

多注速调管外加载谐振腔的分析和模拟

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摘要

该文对多注速调管谐振腔内加载技术和外加载技术以及相关的微波吸收材料作了分析和比较; 理论上阐明外加载谐振腔品质因数的调节途径, 用MWS设计出符合要求的外加载谐振腔; 对由此产生的模式不对称性进行校正, 找出了外加载谐振腔品质因数的影响因素和规律。

关键词 [速调管](#) [谐振腔](#) [品质因数](#) [频率](#) [微波衰减材料](#)

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Analysis and Simulation of the Out-loaded Resonant Cavity Using in the Multi-beam Klystron

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Abstract

First of all, the in-loaded and out-loaded technologies of resonant cavity being used in the multi-beam klystron and some associated microwave attenuating materials are analyzed and compared. Not only the ways of adjustment of out-loaded resonant cavity quality characteristic is illuminated in theory, but is designed the out-loaded resonant cavity meeting the demand. Finally, the asymmetry of the E-field of the mode caused by the out-loaded cavity is adjusted and the influent factors and the change laws of quality characteristic of the out-loaded resonant cavity are located.

Key words [Klystron](#) [Resonant cavity](#) [Quality characteristic](#) [Frequency](#) [Microwave attenuating materials](#)

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