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Optimizing Coupling Slot Design for Pi-Mode Structure Cavity in CSNS II Debuncher

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This paper proposes a new coupling slots design for the Pi-Mode structure high-frequency cavity in the China Spallation Neutron Source (CSNS) Phase II. Through simulation calculations and experimental verification, it was found that the new coupling slots design significantly improves the Q value and transmission efficiency of the high-frequency cavity. This study is of great significance for improving the performance of the high-frequency cavity in CSNS II, and thus improving the accuracy and efficiency of neutron scattering experiments.

Funding Agency

Footnotes

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