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Beam diagnostics for CSNS-Ⅱ linac commission and operation

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The China Spallation Neutron Source (CSNS) facility began operation in 2018. By 2020, its accelerator achieved the design power of 100kW and currently operates at a power of 160kW. This year, the power upgrade project (CSNS-Ⅱ) has been launched to meet the growing scientific demands. Our goal is to enhance the accelerator power to 500kW primarily by increasing the beam current. A comprehensive suite of beam diagnostics has been developed to support commissioning and operation of the accelerator at higher intensities. In this paper, we first review the commissioning and operational status of the existing linac, and then outline the new requirements for the linac upgrade.

Footnotes

Funding Agency

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Yes

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