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Preliminary commissioning results of the LW prototype at CSNS

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China Spallation Neutron Source (CSNS) accelerator complex will employ a new superconducting accelerating section to provide high beam power. To prevent contamination of the superconducting cavity surface caused by sputtering, shedding, or melting of medium materials during interceptive beam measurements, the second phase of the China Spallation Neutron Source (CSNS) superconducting linac section will adopt laser stripping technology for transverse distribution measurements of the negative hydrogen beam at nine stations. This paper describes the design of LW prototype including laser parameters, optics transmission and simulation of laser-beam interaction. And the preliminary results of the profile measurement where beam energy is 80MeV are also presented.

Footnotes

Paper preparation format

LaTeX

Region represented

Asia

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Author: ZHANG, Biao (Institute of High Energy Physics)

Co-authors: CHEN, Cheming (Dongguan Neutron Science Center); YANG, Renjun (Institute of High Energy Physics); WANG, Sheng (Institute of High Energy Physics, CAS); LI, Xiao (Institute of High Energy Physics)

Presenter: ZHANG, Biao (Institute of High Energy Physics)

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