

Suppression of emittance variation for the HALF storage ring

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The Hefei Advanced Light Facility (HALF) is a diffraction-limited storage ring light source. The HALF storage ring lattice has relatively long damping times, which can result in substantial variations in beam emittance when the gaps of insertion devices change. In this paper, we study different ways to suppress the emittance variation of the HALF storage ring, including the usage of damping wigglers in long straight sections, wigglers in short dispersive straight sections and leaked dispersion in long straight sections.

Footnotes

Funding Agency

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Yes

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