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Scaling fixed-field alternating gradient-type magnets for transportation of laser-plasma accelerator electron beams

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A beam transport section using the scaling fixed-field alternating gradient-type (FFAG) magnets is designed to transport laser plasma accelerator (LPA) electron beams to a specific application. This beam transport section has a large momentum acceptance, which is able to collect and transport the LPA beams with a momentum acceptance of up to 10%. Also, using the periodical FFAG magnet cells, the optical functions are identical at the beginning and end of this beam transport section, which makes it capable to be placed in any arbitrary designed beam transport line when transportation to a longer distance is required.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

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