

Partially monochromatic modulated neutrino beams

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Recently, it was proposed to use storage rings with β^+ -radioactive nuclei as sources of electron neutrino beams. If the nuclei have large electron capture branching, than such beams could have a significant monochromatic component. Under certain conditions, in particular, for hydrogen-like ions, one can modulate the monochromatic component. We propose the selection criteria for β^+ -decaying nuclei that could be used to produce intense beams of partially monochromatic and modulated electron neutrinos. It is shown that such beams are obtainable on practice and might be interesting for future experiments.

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