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A high-power target for a Neutrino Factory

A challenging requirement for a Neutrino Factory with a highly directional neutrino beam containing ~10^{21} neutrinos/yr is a target technology which can be used with a proton beam of power levels on the order of 4 MW. We describe our concept for a target system which can operate at such beam powers and thereby generate the intense muon beams the eventual decay of which produces the neutrinos from the Neutrino Factory. Technical issues are discussed and the experimental program devised to validate the target concept is presented.

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