

A proton driver based on a Fixed Field Alternating Gradient Accelerator

As an upgrade of ISIS facility, the next generation spallation neutron source is under consideration. One of option as a proton drive is based on a Fixed Field Alternating Gradient Accelerator (FFA). We are planning the construction of a prototype FFA which accelerates from 3 MeV to 12 MeV to prove the merits of this option. Although the energy range is much lower than the final goal, the space charge tune shift will be the similar level and we will study the effects of the high intensity beams. We are going to talk about the design and status.

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