

Current Status and Activities on the Pohang Neutron Facility

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Abstract

The Pohang Neutron Facility, an electron linear accelerator based pulsed neutron facility, was constructed for nuclear data production in Korea. It consists of an electron linear accelerator, a water-cooled Ta target with a water moderator, and a time-of-flight path with an 11 m length. The neutron energy spectra are measured for different water levels inside the moderator and compared with calculations by the Monte Carlo N-Particle (MCNP) transport code. The optimum size of the water moderator is determined on the base of these results.

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KSTAR ECE 용 마이크로파 금속렌즈 설계

Microwave Metal Lens Design for KSTAR ECE System

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요 약

금속 원판에 수많은 도파관을 갖는 마이크로파 렌즈를 설계하였다. 이 렌즈는 반경이 커 질수록 도파관의 직경이 작아져 렌즈의 가장자리쪽 위상속도가 빨라지고 따라서 마이크로파를 잘 집속시킬 수 있게 설계되었다. 설계된 렌즈의 초점거리는 주파수가 75GHz 일 때 450mm이며 기하광학적인 공간 분해능은 5cm 이하이다.