

Cover photographs

15MeV Compact Electron Linear Accelerator LEENA

Using relativistic electron beams of a compact electron linear accelerator LEENA, the development of terahertz radiation sources is in progress at our laboratory.

Electron beams from a RF gun with a thermal cathode are bunched at an alpha magnet and accelerated by a 15 MeV standing wave linac.

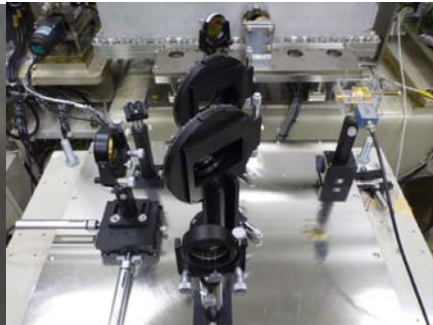
Smith-Purcell light in terahertz regime is emitted from a surface of metal, when an electron passes through the neighborhood of the metal grating.

The light was taken out from a vacuum chamber by three movable mirrors into the atmosphere.

The wavenumber spectrum of the light is measured with Martin-Puplett interferometer, in which wire grid polarizer is used to split terahertz light.



"Smith-Purcell grating and mirrors in the vacuum chamber."



"Martin-Puplett interferometer."