

The Laser-Electron Photon Facility at SPring-8

The LEPS and LEPS2 are open to everybody all over the world in scientific research. The requested running time of each experiment should be up to about one week. The long-term experiments more than a week should be authorized by the LEPS or LEPS2 Collaboration as the joint research. In this case, new letter-of-intents may be submitted.

Each spokesperson should contact the LEPS/LEPS2 division leader, Prof. Masaru Yosoi, for scheduling the beam-time. The LEPS/LEPS2 Facility and the present status are found on the following web page for reference of proposals:

<http://www.rcnp.osaka-u.ac.jp/Divisions/np1-b/index.html>

Low energy ion beams from ion sources

Ion beams supplied from ion sources at RCNP are open to everybody all over the world in scientific research. The use of ion sources for the research of the ion source is also available. Monitoring devices such as beam viewers, emittance monitors and Faraday cups are also available.

Available ion sources with ion species, energies and intensities are listed as follows:

Duoplasmatron

H⁺, D⁺ 30 keV* 10 mA

He⁺ 30 keV* 2 mA

HIPECR

H⁺, D⁺ 15 keV* 500 μ A

He⁺ 15 keV* a few hundred μ A

HIPIS

H⁺, D⁺ (polarized) 15 keV* 10 μ A

*Acceleration energies are to be upgraded up to 50 keV after our studies.

The requested running time of each experiment should be up to about one week. The long-term experiments more than a week should be authorized by the accelerator group in RCNP as the joint research.

Ultra-low background environments and high-sensitive spectrometers

The ultra-low background labs with high-sensitive spectrometers for low radioactivities in scientific research are opened for international joint usage proposals on the following experiments.

- a) Experiments by using high-sensitive spectrometers for low radioactivities
 - i. Ge semiconductor detector*
 - ii. γ -ray detector for measurements of radioactivities within scintillation crystals*
- b) Experiments at underground laboratories
- c) Other low background experiments

*These detectors are installed at Kamioka Observatory, Institute for Cosmic Ray Research (ICRR), the University of Tokyo. Thus your proposal must be accepted by Inter-University Research Program for ICRR before your experiment.

If you have any questions about details of the experimental equipment, please contact Prof. Saori Umehara via an email to umehara@rcnp.osaka-u.ac.jp.

CPU time of the high performance computing system

RCNP offers the use of its high performance computing system for the data analyses, simulation studies and theoretical calculations in the nuclear and particle physics and related fields. Its specification is shown below:

Server Specs:

24 batch servers: (Intel Xeon Gold 6242 2.8GHz x2, 32 cores, 192 GB memory / node)

OS: CentOS 8.2 (2004)

Compilers: IntelParallel Studio XE 2020 Composer Edition (Fortran/C/C++)

GNU Compiler Collection (GCC) version 8.3.1

Library: BLAS/LAPACK, ScaLAPACK, OpenMPI

Other languages: Perl, Ruby, PHP, Python, Tcl/Tk

Installed software: CERNLIB, CERN root, CLHEP, Geant4, texlive, xbae-devel,

The batch queue system for job scheduling is installed. New job classes can be assigned on the request of proponents.