RIBF standard detectors/devices

標準検出器・標準デバイスについて

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加速器実験等安全審査委員長

[E]
RIBF standard detectors/devices are restricted to the ones listed below. In the Accelerator-Use Planning Sheet, you are required to list the equipment other than the standard detectors/devices in the tables as “your own devices/materials” for the matters to be irradiated by the primary/secondary beam. In addition, as a reference for reviewing the safety aspects of your experiment, the standard detectors/devices should be described in the drawing of the experimental setup including the beam dump in the Accelerator-Use Planning Sheet.

[J]
標準検出器・標準デバイスは以下の通りとする。放射線発生装置使用計画書には標準検出器・標準デバイス以外のものを「実験者固有の装置・物質」として一次ビーム・二次ビームに照射される物質の表などにリストアップすること。ただし、安全審査の参考のために実験セットアップの図には標準検出器・標準デバイスも記載されていることが望ましい。特に一次ビーム・二次ビームを止めるものが標準検出器・標準デバイスの場合は、必ず図示すること。

RIBF standard detectors/devices are as follows:

- General devices (basically, fixed alongside the beam line)
  - Faraday cup
  - Beam slit
  - Beam viewer
  - Window film at the end of the beam line
- RIPS
  - Production target
  - Degrader @ F1
  - PPAC, Plastic scintillator, SSD @ F1, F2, F3

RIPS beam diagnosis devices
• CRIB
  ➢ Faraday cup in the D1 magnet
  ➢ Beam dump (0 degree direction)
  ➢ Standard production target (Cryogenic gas target, Water-cooled gas target, Water-cooled solid target) @ F0
  ➢ Degrader @ F1
  ➢ PPAC @ F1, F2, F3
  ➢ SSD @ F2

Standard detectors/devices on CRIB

CRIB
http://www.cns.s.u-toyko.ac.jp/crib/crib-new/
• BigRIPS / ZeroDegree
  ➢ Production target
  ➢ Degrader @ F1, F5 (Degraders designed for your experiment are “your own devices/materials”.)
  ➢ PPAC
  ➢ Plastic scintillator
  ➢ Ion chamber (MUSIC) @ F7, F11
  ➢ CsI @ F7
  ➢ NaI @ F11
  ➢ Ge @ F7
  ➢ SSD @ F5, F7

• SAMURAI
  ➢ BPC (Beam Proportional Chamber) @ F5
  ➢ SBT, SBV (Plastic scintillator for Beam Trigger/Veto)
  ➢ BDC1, BDC2 (Beam Drift Chamber)
  ➢ FDC0, FDC1, FDC2 (Forward Drift Chamber)
  ➢ PDC1, PDC2 (Proton Drift Chamber)
  ➢ ICB, ICF (Ion Chamber for Beam/Fragments)
  ➢ HODF, HODP (Hodoscope for Fragments/Protons)
  ➢ HODS (Small Hodoscope)
  ➢ TED (Total Energy Detector)
  ➢ NEBULA (Neutron Detector)
  ➢ Plastic tank of the water beam dump (WATER in the tank is “your own devices/materials”)

• SHARAQ / OEDO
  ➢ MWDC @ F3, F5, F6 (for SHARAQ/OEDO experiments only)
  ➢ Diamond detector @ F3 (for SHARAQ/OEDO experiments only)
  ➢ MWDC, PPAC, Plastic Scintillator @ F·E7, F·E8, F·E9, F·E10, F·E11, F·E12
  ➢ Degrader (t3 mm, 0~80 mr) @ F·E9, F·E11 (Degraders designed for your experiment are “your own devices/materials”.)
  ➢ CRDC, MWDC, Plastic scintillator @ S2
Technical Information of BigRIPS, ZeroDegree, SAMURAI, and OEDO Beamline
http://ribf.riken.jp/BigRIPSInfo/

SAMURAI standard detectors

OEDO
http://www.cns.s.u-tokyo.ac.jp/oedo/
- Rare-RI Ring (R3)
  - Plastic scintillator @ R3-ILC1, R3, R3-ELC
  - PPAC @ R3-ILC1, R3-ILC2
  - C-foil+MCP @ R3
  - Havar foil @ R3-ELC
  - Ion chamber @ R3-ELC
  - NaI @ R3-ELC

- PALIS / SLOWLI
  - To be determined after the commissioning.