# BL12B2
# NSRRC BM

BL12B2 has been maintained to serve for material science and biological structure users. The optical component of B2 is equipped with a collimating mirror (CM), double crystal monochrometer (DCM) and a focusing mirror (FM). The spot size of the beam is about $250 \times 160 \mu m^2$ (H × V) at protein end station and total flux about $1.5 \times 10^{11}$ at 12keV. There are four end stations, EXAFS, x-ray powder diffraction, x-ray scattering, and protein crystallography (PX) end stations, inside the experimental hutch of B2. The beamtime is shared between material science user and bio-structure users with equal amount. More than 90% of the B2 users are from Taiwan.

EXAFS, x-ray diffraction, x-ray scattering end stations are mainly serving for material science users. The users are covering wide variety of material science topics, such as strongly correlated system, nano science, system under extreme conditions (high pressure), etc..

The upgrade of protein crystallogary (PX) end station was completed and start user operation from 2009 (Fig.1). The aim of our upgrade was to have our PX data collection system fully compatible with other SPring-8 PX beamlines. The detail of the upgrade is as follows. Fisrt, all the equipment except detector (ADSC Q4R) has been renewed to new system. Second, operation software was replaced to SPring-8 standard PX control software BSS. Third, auto sample changer system (SPACE) will also installed. At 2009, the detector will be upgraded to Q210r. These upgrades are expected not only accelerate our current users data collection speed but also give more easy access to Japanese PX community.

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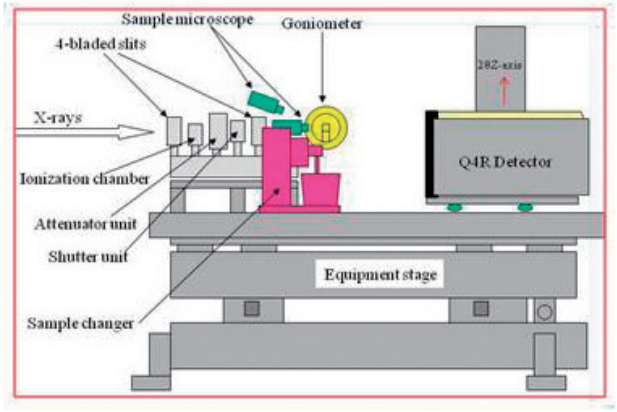
(a)




(b)

Fig.1 (a) Schematic and (b) real image of new protein end station.