

NEW APPARATUS & UPGRADES

Undulator Update in 2007

Two major updates on light sources in existing beamlines were performed during the summer shutdown in 2007, with the aim of achieving better optical performance. The first update was the swapping of devices. The insertion device originally installed in BL10XU (ID10) was exchanged with that in BL46XU (ID46) to take the greatest advantage of the optical properties obtained by these two light sources, especially the photon energy region available with fundamental radiation. The periodic length of ID46/ID10, which is now installed in BL10XU/BL46XU, is 24mm/32 mm and can provide higher/lower photon

energy with fundamental radiation, which is required from the users of each beamline. A variety of experiments using the photons in the new energy range are expected to be performed at both beamlines. The second update was to install a new system for helicity switching in BL23SU, which is basically the same as that in BL25SU. What should be noted is that the undulators are the in-vacuum type to reduce the periodic length and increase the number of periods. The layout of the kicker system installed in BL23SU is schematically shown in Fig. 1.

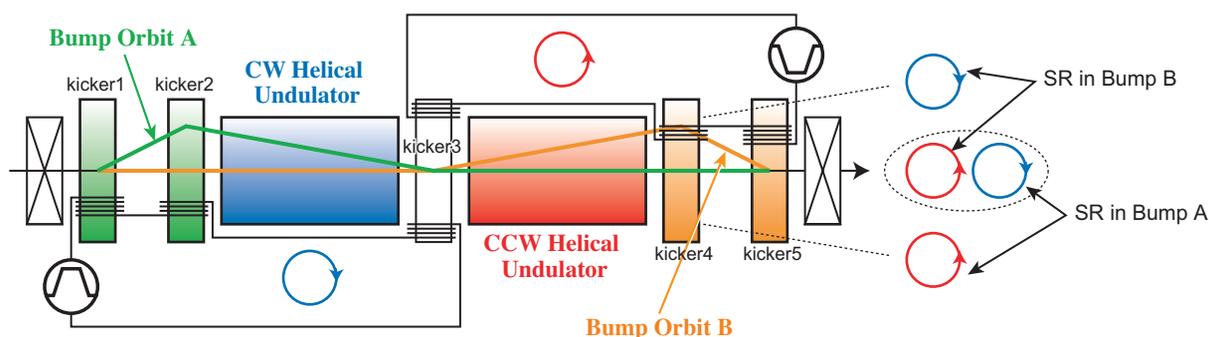


Fig. 1. The kicker magnet system used to change the helicity quickly. The maximum switching speed is expected to be up to 10 Hz, as in the case of BL25SU.

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