

## **Helical-undulator beamline for soft X-ray microspectroscopy at Saga LS**

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An X-ray microscopy project has been proposed at the new synchrotron light source (Saga-LS) that is a third generation 1.4-GeV storage ring [1]. In the project, a planar undulator is used as the insertion device and the following specifications are expected. The linearly polarized X-ray is ~70-nm diameter spot;  $\sim 2 \times 10^3$ -energy resolution (E/dE) and over  $10^9$ -photon flux (photons/sec) at sample in the X-ray region of water-window.

On the other hand, there is an increasing interest in using a circularly polarized (CP) radiation generated from a helical undulator. The CP radiation has been recognized as a powerful tool in the investigation of polarized properties such as X-ray magnetic circular dichroism measurement. Thus, we studied the feasibility of the helical undulator beamline for soft X-ray microspectroscopy at the Saga LS. Details of the feasibility will be presented at the conference.

### Reference

[1] M. Yasumoto et al., Proc. of XRM2002, pp63-66, 2003.