

**Initial Commissioning of Dedicated SR Ring "AURORA-2S" for X-ray Lithography, T. HORI, H. MIYADE, H. MURATA, T. TAKAYAMA, SUMITOMO-HEAVY-IND.** - A compact synchrotron light source "AURORA-2S" (A2S) which specifications were optimized for X-ray lithography has been being developed based on the conventional normal-conducting technology [1], on the contrary to the recent trends of applying the sophisticated superconducting (s.c.) technology to small SR rings. The operation and maintenance of A2S are, therefore, very simple and take no long time, which is essential for industrial uses. It is a great advantage of A2S when compared with the s.c. rings designed for the same purpose. The most unique concept of racetrack-shaped A2S lies in the normal-conducting bending magnets whose field strength, 2.7 Tesla, is somewhat comparable to the s.c.'s. This makes A2S, the size of which is W3.6m x L6.5m x H1.7m, as compact as the s.c. rings. Other major specifications are as follows; 700 MeV electron energy, 1.4 nm critical wavelength, 191 MHz of RF with 7 harmonic numbers, etc. The assembling of A2S has been completed and initial commissioning is to start soon in mid-January. The results of the beam test will be presented together with the design features of A2S.

- [1] T. Hori and T. Takayama, Proc. 4th Int'l Conf. on Synch. Rad. Sources and 2nd Asian Forum on Synch. Rad. (Kyongju, Korea, Oct.25-27, 1995) pp.148-158