

New Developments at the ASTRID Storage Ring.
S.P. MØLLER and J.S. NIELSEN, ISA, University of Aarhus, Denmark - The ASTRID storage ring [1] has now been in operation since 1991 operating both as an ion storage ring primary for atomic physics studies, and as a 580 MeV synchrotron light source. Up to now more than 60 different ions, molecules, and clusters, both positive and negatives, have been stored, with masses from 1 AMU (H) to 840 AMU (C₇₀⁻) and energies from a few keV (⁴He⁺) to 80 MeV (H₂⁺). In electron operation we routinely store 150-200 mA with a lifetime of 15-20 h. In the poster we will give an account of the operational experiences of the ring. Recent new developments will furthermore be described. This will include change of the old ferrite-loaded cavity to a new drifttube setup for ion acceleration, installation of quadrupole shunts allowing beam position measurement in the quadrupoles giving better orbit control, and installation of an undulator for increased SR flux in the energy range 10-200 eV.

[1] S.P. Møller, Proc. 3rd EPAC, Berlin 92, p 158.