SAW - A Superconducting Asymmetric Multipole Wiggler at the DELTA Storage Ring,
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To satisfy the present need for the generation of intense synchrotron radiation with **C**ircular **P**olarization in the **X**-**R**ay region (CPXR), a 5.5 Tesla **S**uperconducting **A**symmetric multipole **W**iggler (SAW) for the 1.5 GeV electron storage ring DELTA (**D**ortmund **EL**ectron **T**est **A**ccelerator) was developed and is now under construction. A special coil arrangement allows two operation modes of the wiggler. A symmetric mode with 9 periods of a sinlike field with a peak value of 2.75 Tesla and an asymmetric mode with 5 periods and a peak value of 5.5 Tesla. The asymmetric mode generates circular polarized synchrotron radiation in the 1 Angstrom wavelength regime. The operation of the wiggler will start at the beginning of 1997. The magnet design and the properties of the wiggler radiation are presented in the paper. A short review of the planned experiments is given.