Commissioning of Phase I Insertion Devices at MAX IV Laboratory

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An overview of the insertion devices (ID) activities at MAX IV Laboratory will be presented. The talk will briefly focuses on the first commissioning results of the first 11 IDs installed at the three accelerators in MAX IV laboratory. The IDs are two Elliptically Polarizing Undulators (EPU), two In-Vacuum Undulators (IVU) and one In-vacuum wiggler installed at 3 GeV ring, four EPUs in the 1.5 GeV ring and 2 IVUs at the Short pulse facility installed at the Linear accelerator for spontaneous emission.

The impact of the IDs on the electron beam in terms of orbit distortion, machine optics, injection efficiency and lifetime will be discussed. The correction schemes to reduce the IDs effects will be described.

I will briefly report on the magnetic measurement capabilities at MAX IV, which has been used for the in-house production of 6 EPUs. The IDs for Phase II & III beamlines at the 3 GeV ring and future plan for IDs for proposed Soft X-ray FEL using the 3 GeV linear accelerator at MAX IV will be presented.