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Experience with cryogenic operation of Accelerator Module Test Facility during testing of one third of XFEL cryomodules

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The European X-ray Free Electron Laser (XFEL), which is under construction at DESY, will produce pulsed electron beam with energy of 17.5 GeV. 800 superconducting niobium 1.3 GHz nine cell cavities and 100 superconducting magnet packages will be installed in 100 cryomodules. Each cryomodule of 12 m total length includes the 2K cold mass and two radiation shields at ca. 5-8K and 40-80K temperatures. All cavities, magnet packages and assembled accelerator modules have to be tested at nominal operating conditions. The tests take place in the Accelerator Module Test Facility (AMTF). We report our experience on cryogenic operation of AMTF after two years of operation.

Author: Dr PETERSEN, Bernd (DESY)

Co-authors: Mr ZHIRNOV, Anatoly (DESY); Dr SWIERBLEWSKI, Jacek (IFJ-PAN); Dr PUTSELYK, Sergiy (DESY); Dr SCHNAUTZ, Tobias (DESY); Mr BOZHKO, Yury (DESY)

Presenter: Dr PETERSEN, Bernd (DESY)

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