Ninth CW and High Average Power RF Workshop



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Type: Oral presentation

Commissioning of high-power RF at Solaris Light Source

Thursday, 23 June 2016 17:30 (30 minutes)

This presentation will give a view on an installation, a commissioning process and first operational experience related to injector's acceleration components and cavities in storage ring with their RF power sources and transmission lines at Solaris synchrotron. Solaris injector's RF stations uses one K1-type solid state pulsed modulator with S-band 10MW Thales klystron for RF thermionic gun and 3 pieces of K2-type solid state pulsed modulators with S-band 37MW Toshiba klystrons. Modulators are operational since November of 2014, first as standalone RF units for test themselves and now in connection with linear accelerator. Injector consists S-band thermionic RF gun, 6 pieces of room temperature S-band accelerating structures organized in 3 units. 3 SLED cavities are working in one unit. Storage ring includes 2 pieces of 100MHz active main cavities and 2 pieces of 3rd order passive cavities. 2 pieces of solid state 100MHz 60kW transmitters are used for operation in storage ring since May 2015. They are modified CW Band II broadcasting transmitters. Two 30kW racks are combined in one 60kW system and modification in internal control system have been implemented light source application.

Summary

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