



Operational status and experience of the TLS CESR-B type SRF module

Monday 22 September 2025 14:30 (3 hours)

Taiwan Light Source (TLS) is a third-generation synchrotron light source located at NSRRC in Taiwan, operating at an electron energy of 1.5 GeV. The original RF system of TLS utilized two normal-conducting Doris cavities. In 2005, these were replaced with a single CESR-B type superconducting RF (SRF) module, which significantly improved the system's stability and enabled an increase in the operating beam current to 360 mA. This report describes the operational performance of the SRF module over more than 20 years, including statistical records, performance monitoring, and major operational issues along with their solutions. The status of the spare SRF module is also discussed in this report.

I have read and accept the Privacy Policy Statement

Yes

Footnotes

Funding Agency

Author: LO, Chih Hung (National Synchrotron Radiation Research Center)

Co-authors: HUANG, Chao-Hui (National Synchrotron Radiation Research Center); WANG, Chaoen (National Synchrotron Radiation Research Center); CHUNG, Fu-Tsai (National Synchrotron Radiation Research Center); CHEN, Ling-Jhen (National Synchrotron Radiation Research Center); CHANG, Mei-Hsia (National Synchrotron Radiation Research Center); YEH, Meng-Shu (National Synchrotron Radiation Research Center); LIN, Ming-Chyuan (National Synchrotron Radiation Research Center); CHANG, Shian-Wen (National Synchrotron Radiation Research Center); LI, Yi-Ta (National Synchrotron Radiation Research Center); LIU, Zong-Kai (National Synchrotron Radiation Research Center)

Presenter: LO, Chih Hung (National Synchrotron Radiation Research Center)

Session Classification: Monday Poster Session

Track Classification: MC1: SRF Facilities