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C2Po1B-05: Operational experience of QWR cryomodules for RAON

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Low energy linac(SCL3) of RAON (Rare isotope Accelerator complex for ON-line experiment) has been commissioned since 2023. SCL3 is composed of two types of superconducting cavity, which are QWR (Quarter wave resonator) and HWR (Half wave resonator). The stable operation of cavities was limited due to the imperfect performance of tuners in QWR cryomodules. Also, the various disturbances originated from the cryogenic system, utilities, and so on causes the failures of the superconducting cavities. Since QWRs are operated in 4.5 K, the main disturbances are related with the cryogenic system such as helium pressure, helium flow rate, valve movement and so on. The operational experience which is focused on the causes of cavity failures and source of disturbances of QWR cryomodules of RAON will be introduced.

Author: Dr KIM, Youngkwon (Institute for Basic Science)

Co-authors: JANG, Hyojae; SHIN, Jae Hee (Institute for Basic Science); LEE, MinKi; CHUNG, Yeonsei (Institute for Basic Science)

Presenter: Dr KIM, Youngkwon (Institute for Basic Science)

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