

REVIEW OF SLOW AND FAST TUNERS

Stefan Simrock, DESY

Abstract

Frequency tuners are an essential and critical component of acceleration systems based on superconducting cavities. Slow tuners must cover a wide tuning range (of up to several hundred kHz), while providing a resolution of the order of 1 Hz. Fast tuners which are used to compensate Lorentz force detuning and to control microphonics provide only a tuning range of several cavity bandwidths but can support a control bandwidth of several kHz. Furthermore the frequency tuners should be free of hysteresis, and guarantee a long lifetime of more than 10 years. Various types of slow and fast tuners which are presently in operation or under development will be presented.

NO SUBMISSION RECEIVED