

Automatic Multi-Pactoring Conditioning of the Super Conducting Resonators in the ALPI Linac,
G. BASSATO, L. BOSCAGLI, S. CANELLA,
D. CARLUCCI, F. CHIURLOTTO, S. GUSTAFSSON,
A.M. PORCELLATO, INFN-LNL - In the multi-pactoring conditioning process of super-conducting resonators the RF power is absorbed by resonant electrons which keep the accelerating field limited at very low levels. In the ALPI Linac 57 super-conducting cavities are now installed and the problem of multi-pactoring conditioning is solved feeding the still normal-conducting resonators with RF power by the RF amplifiers used for normal operation (100 W) while the cryostat shields are kept "cold" (50-70 K). This procedure is efficient and lasts only some hours (2-6) if resonators are kept in each multi-pactoring level as long as the resonant electron loading has vanished. In order to reduce the manpower necessary to perform this time-consuming preliminary operation some computer-driven automatic procedures have been recently added to ALPI RF control system. The first results of this automation effort have been encouraging and the automatic conditioning system is here described.