

**Investigation of the High Order Mode (HOM) Field Distribution in the Beginning Part (30 cells) of the SBLC Accelerating Structure, S.V. IVANOV, V.E. KALJUZHNY, O.S. MILOVANOV, A.N. PARFENOV, N.P. SOBENIN, MEPI** - The trapped dipole fields distributions in the initial part (30 cells) of the SBLC DLW section have been measured and investigated. The experimental investigation of the Q-factor reduce of the trapped modes through the input coupler have been carried out. The shunt impedance of the first dipole mode having the  $\pi$ -like mode distribution have been measured. The investigation of eigen frequencies of the input coupler in the dipole frequency range have been done. The obtained results are presented.