

**Research of the Accelerator RF System with Biperiodic Accelerating Structure,**  
**B. BOGDANOVITCH, V. KAMINSKY, MEPHI** - In the report the characteristics of the accelerator radio-frequency system with the biperiodic accelerating structure are examined. A structure feeding is carried out from magnetron. The generator insulation from high Q-factor load is provided with the help 3-dB directional coupler. Biperiodic structure specific feature is several resonant modes presence in it next with operational mode. These modes can render essential influence on work of the accelerator radio-frequency system. It is discussed definition technique of tolerances on characteristics tuning of RF-units and accelerating structure. Implementation of these tolerances at operational and next to it modes makes generator work steady and stable in various regimes. The calculated results well coincide with experimental data received at several working accelerators.