

Contribution ID: 98 Type: Poster

Single –triple pulse Power supply for 2 kA, 20 MeV Linear Induction Accelerator

Tuesday, 20 June 2017 13:30 (1h 30m)

A pulsed system for a 2 kA, 20 MeV linear induction accelerator power supply was developed. On a first stage of operation it is capable of producing a 336 kV, 2 kA, 60 ns single pulse at the accelerating inductive cells. Each cell is supplied by 8 pulse modulators based on an inductive voltage adder principle. Each modulator is designed to produce pulses up to 21 kV, 10 kA with a different flattop duration of 60 or 380 ns, also it can be used in a triple pulse mode operation with a time shift between pulses which can be set from 2 to 10 μ s. The modulator's single and triple pulse mode as well as the auxiliary charging and biasing systems test results are presented. Also the pseudospark switches batch testing is described.

Primary author: Dr AKIMOV, Aleksandr (BINP)

Co-authors: Mr AKHMETOV, Aleksandr (VNIITF); Mr BAK, Petr (BINP); Mr BAYDAK, Aleksey; Mr CHERNICA, Artem (VNIITF); Mr EGORYCHEV, Michail (BINP); Mr ELISEEV, Andrey (BINP); Mrs FEDOROVA, Lyudmila (BINP); Mr GIVANKOV, Kirill (BINP); Mr HRENKOV, Sergey (VNIITF); Mr KULENKO, Yaroslav (BINP); Mr OTTMAR, Andrey (BINP); Mr PACHKOV, Aleksey (BINP); Mr PANOV, Aleksey (BINP); Dr PAVLOV, Oleg (BINP)

Presenter: Dr AKIMOV, Aleksandr (BINP)

Session Classification: Poster session II - Particle Beam and Accelerator Technologies

Track Classification: Particle Beam and Accelerator Technologies