

CALCULATION OF THE ELECTRIC FIELD
PARAMETERS OF IONS BEAMS AND
CAPTURE CONDITIONS FOR FREE
ELECTRONS IN RF-ACCELERATORS

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S u m m a r y

The analytic representations for the potential and electrical field strength for the beams of RF-accelerators with spherical bunches with homogeneous and parabolic density distributions of ions are derived. The conditions for capture, trajectories, and close orbits of electrons of the residual gas created in the electric field of moving bunches have been calculated by taking into account the typical parameters of RF-accelerators.