

Electron Injection in Circular Microtrons,
S. AXINEXCU, IAP Bucharest - The circular microtron is a useful machine in the range of 10...30 MeV electron energy for applications. The possibilities of injecting the electrons in microtron are analysed, describing various systems. Numerical computations of electron motion in the resonant cavity were performed, resulting a capture coefficient of about 1/24. In the microtron from the Institute of Atomic Physics, Bucharest, the average beam power is 0.5 kW at 10 MeV energy in the first accelerating mode and at 16 MeV energy in the second accelerating mode. In the end, the possibilities of increasing the capture coefficient are presented.