

The Injection Scheme for the ANKA Storage Ring, D. EINFELD, E. HUTTEL, R. ROSSMANITH, R. WALTHER, Forschungszentrum Karlsruhe (FZK), ANKA Project Group - The injector for the 2.5 GeV synchrotron light source ANKA is a 500 MeV booster synchrotron. The injection is performed with three kickers and a septum. In this paper the results of the tracking calculations and the injection elements are presented. The tracking is done with the program DIMAD which allows to evaluate the influence of the sextupoles on the injection efficiency. It is shown that the optimum injection efficiency is obtained with a significant mismatch of the horizontal beta functions of the injected and the stored beam. According to the calculations the injection efficiency will be larger than 90 percent. The maximum kicker strength will be 3 mrad. The design of the kickers and the septum will be presented. Both kickers and septum are placed outside the vacuum chamber.