Beam Parameters at the Internal Target Positions for Experiments in COSY - Julich, I. ZYCHOR, SINS, Swierk, Poland; R. MAIER, S. MARTIN, D. PRASUHN, O.W.B. SCHULT, IKP, FZ Julich, Germany - At the internal target positions in COSY both foil and gas targets can be installed. With internal foil targets very high luminosity can be achieved but also sufficiently high luminosity can be obtained with polarized storage cell targets or atomic beam targets because of the high intensity of the circulating beam. For optimal experimental conditions the ring acceptances should be large and the beta functions at the target position should be small. The ring acceptances depend on the maximal beta functions in the COSY ring and on its apertures. The figure of merit for each target position will be discussed both for the experiment running already at COSY and for experiments prepared for the ANKE spectrometer.