

A Residual Gas Beam Profile Monitor for Crystal Storage Ring. N. CECI, T. CLAUSER, V. STAGNO, V. VALENTINO, V. VARIALE, INFN and Physics Department Of Bari; A. DAINELLI, M. POGGI, INFN-LNL (PADOVA) - A non destructive monitoring of the beam density profile is a very important device to study the cooling process of an ion beam circulating in a storage ring. Actually, two beam profile monitors can be used to measure the transverse beam temperature during the cooling process and then study heating phenomena in the beam itself. A residual gas beam profile monitor has been designed and constructed. The new feature of this device is the read-out system that can lead to a sensitive improvement of the spatial resolution (about 70 μm). The design, the construction problems and the preliminary test with a ion beam from an electrostatic accelerator are presented.