17. MICROSTRIP METAL DETECTORS

V. M. Pugatch, V. L. Perevertailo, O. A. Fedorovitch, A. G. Borisenko, E. G. Kostin, M. P. Kruglenko, B. P. Polozov, L. I. Tarasenko

Elements of the technology are presented for the production of Microctrip Metal Detectors (MSMD) designed for the charged particles beam as well as synchrotron radiation monitoring. Problems emerged for the photolithography as well as chemical etching applied to the supporting silicon wafer. Taking into account the acquired experience it was possible to produce stable MMSD plates with 32 strips (thickness 1 μ M, width 30 μ M, pitch 70 μ M) at the working area of (10 × 10) mm², created by the plasma-chemistry etching of the silicon wafer. The MSMD prototypes produced under the developed technology were successfully tested in the scientific centre DESY (Hamburg).