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## The AMS-02 Silicon Tracker: construction and performance

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Eight layers of double sided silicon microstrip sensors embedded in a 0.8 T magnetic field constitute the core of the AMS-02 apparatus. In each layer, simultaneous measurements of position and energy loss in silicon are performed along the particle trajectory. With its high spatial resolution, the silicon tracker will determine the rigidity ( $R$ ) and the charge sign of particles up to several TVs, with a relative resolution  $\sim 2.5\%$  at  $R < 100$  GV. The low noise and wide dynamic range of the silicon readout electronics allow to exploit the energy loss measurements to determine the particle absolute charge for nuclei up to Fe. The AMS Tracker construction has been completed and it will be integrated into the AMS experiment during the 2007. The performance of the silicon detectors observed under various beam tests will be presented focusing on the spatial resolution and on the charge separation capability. The performance of the six inner planes, already integrated in the flight structure, with cosmic rays will also be presented.

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