

## Technique to measure an ion track profile

Musseau O, Ferlet-Cavrois V, Campbell AB, Knudson AR, Buchner S, Fischer B, Schlögl M  
*IEEE TRANSACTIONS ON NUCLEAR SCIENCE 45 (1998) 2563-2570*

Effects of the radial density distribution of carriers generated in a single ion track have been observed in thin silicon detectors. These devices have been irradiated with either an ion microbeam at low energy or a high-energy standard ion beam. We describe the mode of operation of the tested structure, and propose an interpretation of the experimental charge collection data to extract information on the ion track profile. Experimental results are compared to 3D simulations and simplified analytical profiles.