

Computer-forgetfulness, cosmic radiation, and an ion microscope

Fischer BE, Metzger S, Barak J, Adler E

NUCL. INSTRUM. & METHODS IN PHYSICS RESEARCH SECT. B 146 (1998) 587-595

After an introduction to the cosmic ray environment, we show why few-MeV heavy ions are suitable to simulate cosmic radiation effects in integrated circuits, and how the sensitive sites for various radiation effects can be localised using an ion microscope and a specially designed, small hardware circuit. As a tutorial for the potential of the microprobe technique we show a series of results obtained for a 2kx8 bit static RAM (HM65162).