

Simulation of 3D Diamond Detectors

3D Diamond detectors present an interesting prospect for future Particle Physics experiments. They have been studied in detail at beam tests with 120 GeV protons and 4 MeV protons. To understand the observations that have been made, simulations have been carried out using Sentaurus TCAD in order to understand the movement of charge carriers within the sample, as well as the effects of charge sharing. Reasonable agreement has been observed between simulation and experiment.

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Track Classification: Semiconductor Detectors