

Recent Development of Magnetic Calorimeters using dc-SQUID

Y. H. Kim

Division of Advanced Technology, Korea Institute of Standards and Science, Daejeon, Korea

During the last two decades cryogenic detectors using superconductive electronics have been developed in the needs for high resolution and low threshold in the detection of x-rays and other particles. Magnetic calorimeters made of paramagnetic material placed inside the loop of a dc-SQUID susceptometer have recently improved their performance in the cryogenic particle detection. In the present report the detection principle of magnetic calorimeters is discussed with together their applications. Practical SQUID susceptometers are introduced with their design and noise. The recent improvement and future plans are also summarized.

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