

Abstracts

SQUID-NDE method on damaged area and damage degree of defects in composite materials

Y. Hatsukade, M.S. Aly-Hassan, N. Kasai, H. Takashima, H. Hatta and A. Ishiyama. "SQUID-NDE method on damaged area and damage degree of defects in composite materials." Applied Superconductivity Conference 13.2 (2002 Applied Superconductivity Conference Part 1): 207-210.

Current detection method was developed to detect damaged area and damage degree of complex defect in electrically conductive composite materials by using superconducting quantum interference device (SQUID) gradiometer. The method was applied to a carbon fiber-reinforced carbon matrix composites (C/Cs) specimen in various damage conditions to investigate the effectiveness of the method. The area and amount of detoured current due to damage in the specimen were successfully detected corresponding to the damage condition. The possibility of the method for classification of the damage condition was discussed.