Gamma Radiation Effects On GdBa2Cu3O7 High Temperature Superconductor

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WILEY-V C H VERLAG GMBH, PHYSICA STATUS SOLIDI C - CURRENT TOPICS IN SOLID STATE PHYSICS, VOL 3,

NO 9; pp: 2975-2977; Vol: 3

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Summary

Hysteresis loops measurements have been performed for various GdBa2Cu3O7 high temperature superconducting samples irradiated with various does of gamma radiation. Magnetic measurement at low temperatures (close to 4 K) revealed initial gradual increase in the pinning force and critical current density with gamma does. These measurements also revealed non-monotonic changes in the pinning force close to the transition temperature. Very little reduction in the transition temperature has been observed with gamma dose. (c) 2006 WILEY-VCH Verlag GmbH Co. KGaA, Weinheim.

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