

ELECTRICAL PROPERTIES AND EMISSION OF STACKS OF TWO LONG JOSEPHSON JUNCTIONS WITH HIGHLY INHOMOGENEOUS DISTRIBUTION OF CRITICAL CURRENTS

Contact Phone

Abstract

We studied the influence of symmetry of the distribution of critical currents in highly inhomogeneous long Josephson junctions and stacks with inductive coupling on IV-characteristics and ac power of emission. When the distribution is fully symmetrical, only even zero-field steps remain in the IV-curves, whereas in the non-symmetrical case both odd and even zero-field steps appear. Coherent emission was found at zero-field steps of stacks at voltages which correspond to frequencies of the in-phase modes.

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