Title (en)

Electric circuit for high uniformity magnetic field.

Title (de)

Elektrischer Stromkreis für ein Magnetfeld hoher Gleichmässigkeit.

Title (fr)

Circuit électrique pour un champ magnétique à haute homogénéite.

Publication

EP 0145940 A1 19850626 (EN)

Application

EP 84113459 A 19841108

Priority

US 55321183 A 19831118

Abstract (en)

A plurality of superconductive coils are disposed in parallel with superconductive switching elements to form a plurality of superconductive current loops. The current loops are connected by bridging conductors connecting the current loops so that the superconductive coils are connected in series. The circuit is energized by establishing a main current in the series connected superconductive coils with the superconductive switches in the ohmic state. The switches are then switched to the superconductive state when the desired current level is reached. The main power supply is then removed. Adjusting currents are subsequently independently established in the superconducting loops as needed. With this circuit and method, a means is provided for establishing high uniformity magnetic fields. As an additional benefit, the present method offers significant manufacturing advantages in the testing of superconductive joints.

IPC 1-7

H01F 7/22; H01L 39/16

IPC 8 full level

G01R 33/20 (2006.01); **A61B 5/055** (2006.01); **A61B 10/00** (2006.01); **G01R 33/3875** (2006.01); **H01F 6/00** (2006.01); **H01F 7/20** (2006.01)

CPC (source: EP)

H01F 6/006 (2013.01)

Citation (search report)

- US 3263133 A 19660726
- DE 2153562 B2 19791025
- GB 1179740 A 19700128 - HITACHI LTD [JP]
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Designated contracting state (EPC)

CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

EP 0145940 A1 19850626; **EP 0145940 B1 19880427**; DE 3470815 D1 19880601; IL 73353 A0 19850131; IL 73353 A 19881130; JP S60137005 A 19850720

DOCDB simple family (application)

EP 84113459 A 19841108; DE 3470815 T 19841108; IL 7335384 A 19841029; JP 24091784 A 19841116