Title (en)

METHOD AND DEVICE FOR PRODUCING A MAGNETIC FIELD WHICH CAN BE FREELY ORIENTED SPATIALLY USING SUPERCONDUCTING PERMANENT MAGNETS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG EINES RÄUMLICH FREI ORIENTIERBAREN MAGNETFELDES MITTELS SUPRALEITENDER DAUERMAGNETEN

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR GÉNÉRER UN CHAMP MAGNÉTIQUE POUVANT ÊTRE ORIENTÉ LIBREMENT DANS L'ESPACE AU MOYEN D'AIMANTS PERMANENTS SUPRACONDUCTEURS

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Application

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Abstract (en)

[origin: WO2009095298A1] The invention refers to the area of materials science and relates to a device as is applied in the manufacture of thin layers, for example. The object of the present invention is to provide a method and a device for the production of a magnetic field which can be freely oriented spatially and maintained. The object is met by a device comprising a superconducting permanent magnet, a cooling device, a magnetization device, a device for three-dimensional translation and three-dimensional rotation of the permanent magnet and a moveable probe. The object is also met by a method in which a superconducting permanent magnet is subjected to a magnetic field and is thereby cooled down to below the transition temperature thereof and held there, and then transported by way of the device for three-dimensional translation and three-dimensional rotation to a location from which the now permanent magnetic field affects the probe.

IPC 8 full level

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