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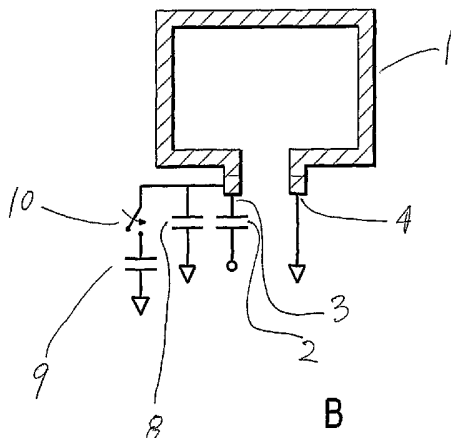
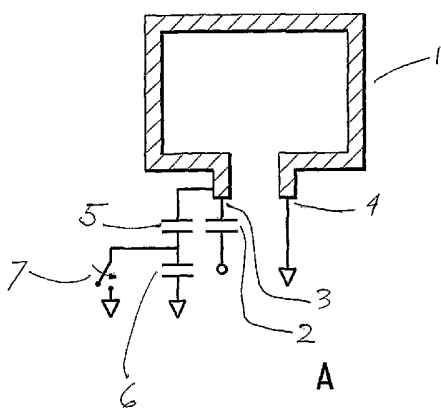
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(54) Title: MATUAL DECOUPLING OF EXCITATION AND RECEIVE COILS OF A NUCLEAR QUADRUPOLE RESONANCE DETECTION SYSTEM



(57) Abstract: This invention relates to a method for improving the performance of a nuclear quadrupole resonance detection system by reducing the coupling between one or more excitation coils that provide the radio frequency magnetic field that excites the quadrupole nuclei and one or more high temperature superconductor receive coils that detect the resulting nuclear quadrupole resonance signal. The coupling is reduced by shifting the resonance frequency of the one or more receive coils during excitation and, preferably, by shifting the resonance frequency of the one or more excitation coils during reception. Shifting may involve PIN diode switches.



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European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,
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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G01R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, COMPENDEX, INSPEC, BIOSIS, EMBASE, MEDLINE, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	WILKER C ET AL: "HTS sensors for NQR spectroscopy" MICROWAVE SYMPOSIUM DIGEST, 2004 IEEE MTT-S INTERNATIONAL FORT WORTH, TX, USA JUNE 6-11, 2004, PISCATAWAY, NJ, USA, IEEE, 6 June 2004 (2004-06-06), pages 143-146, XP010727243 ISBN: 0-7803-8331-1 the whole document	1-11
Y	WO 99/45409 A (BTG INTERNATIONAL LTD; ROWE, MICHAEL, DAVID; SMITH, JOHN, ALEC, SYDNEY) 10 September 1999 (1999-09-10) page 1, lines 4-6 page 23, line 25 - page 24, line 23 ----- -/--	1-11

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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