Title (en)

A SYSTEM AND METHOD FOR DETECTING SPECIFIC SUBSTANCES USING NUCLEAR QUADRUPOLE RESONANCE, AND A COIL USED THEREWITH

Title (de)

SYSTEM UND VERFAHREN ZUM ERKENNEN SPEZIFISCHER SUBSTANZEN DURCH VERWENDUNG VON KERNQUADRUPOLRESONANZ UND DARIN VERWENDETE SPULE

Title (fr)

SYSTEME ET PROCEDE DE DETECTION DE SUBSTANCES SPECIFIQUES PAR RESONANCE DE MASSE QUADRIPOLAIRE NUCLEAIRE, ET BOBINE ASSOCIEE

Publication

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Application

EP 04736372 A 20040609

Priority

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Abstract (en)

[origin: WO2004109313A1] A ribbon width coil (1) comprising two non-contiguous turns (7, 8) circumscribing a rectangular volume in a matching inverse like manner. Each turn at its beginning has a longitudinal width smaller than at its other end. The smaller width portion extends for half a turn with the wider portion extending the majority of the length of the coil. The turns are spaced by a marginal gap (9). Between the turns crossing the gap capacitors (11) may be placed to enable selective frequency tuning of the coil. In another form, a plurality of sub-units (10, 20) that each may include a ribbon width coil (1) are located along a conveyor sub-system (100). The sub-units are operated simultaneously and may be adapted to detect NQR signals of the same or different frequency bands. Received signals from an article moving along the conveyor may be processed to detect a range of explosives or narcotics substantially simultaneously.

IPC 8 full level

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