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## Laser-Assisted Fabrication of NMR Resonators

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**Brey et al.**

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(54) **LASER-ASSISTED FABRICATION OF NMR RESONATORS**

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(51) **Int. Cl.**<sup>7</sup> ..... **H01F 7/06**

(52) **U.S. Cl.** ..... **29/606**; 29/602.1; 29/847; 324/318; 324/319; 336/183

(58) **Field of Search** ..... 29/605, 606, 602.1, 29/25.42, 847, 610.1, 611, 612, 592.1, 600, 601, 602.01, 603.01, 603.13, 603.15, 603.16, 603.25, 324, 322, 422; 324/319, 318; 336/223, 182, 183, 186, 188, 187

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(57) **ABSTRACT**

A detection coil for use in nuclear resonance magnetic (NMR) spectroscopy and a method of manufacture thereof. At least two film layers of material are deposited on an outer surface of a cylindrical tube of dielectric material. The layers are patterned to form a solenoid on the tube. At least one of the deposited materials is a conductor.

**17 Claims, 5 Drawing Sheets**

