



## Rf Coil Assembly And Method For Practicing Magnetization Transfer On Magnetic Resonance Imaging And

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### The Invention

An RF coil assembly for an MRI system includes a resonator formed by a cylindrical shield and pairs of opposing conductive legs disposed symmetrically around a central axis and extending the axial length of the shield. One set of conductive leg pairs is tuned to operate at the Larmor frequency of  $^{13}\text{C}$  and another set is tuned to operate at the Larmor frequency of  $^1\text{H}$ . Drive circuitry operates the RF coil assembly to produce  $^1\text{H}$  spin magnetization which is transferred to  $^{13}\text{C}$  magnetization by the nuclear overhauser effect and to acquire MR data from the  $^{13}\text{C}$  spins. Multinuclear measurements can be made simultaneously at different Larmor frequencies.

### Additional Information

#### For More Information About the Inventors

- [Sean Fain](#)
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#### Tech Fields

- [Medical Imaging : MRI](#)

For current licensing status, please contact Jeanine Burmania at [jeanine@warf.org](mailto:jeanine@warf.org) or 608-960-9846