Comparative Study of Two Magnetoacoustoelectric Modalities

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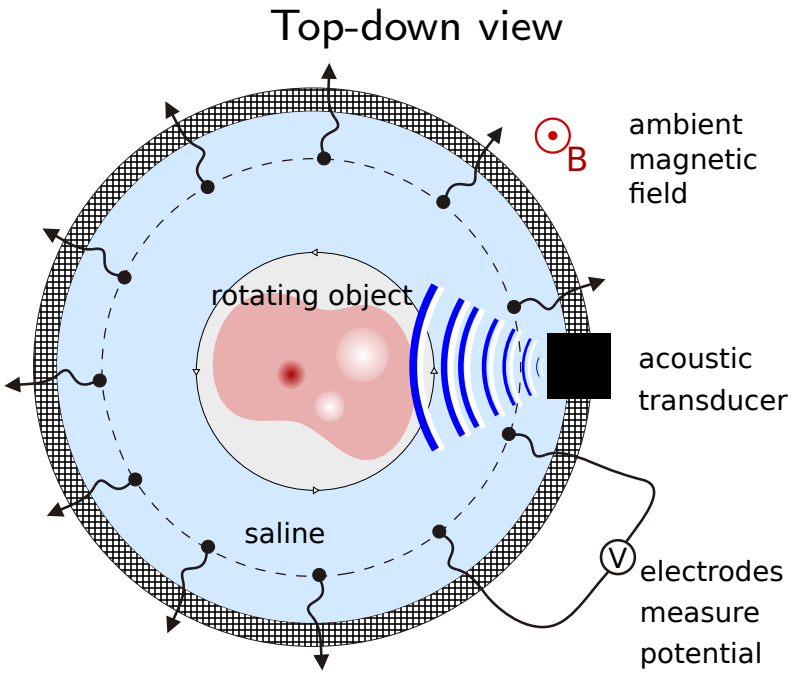
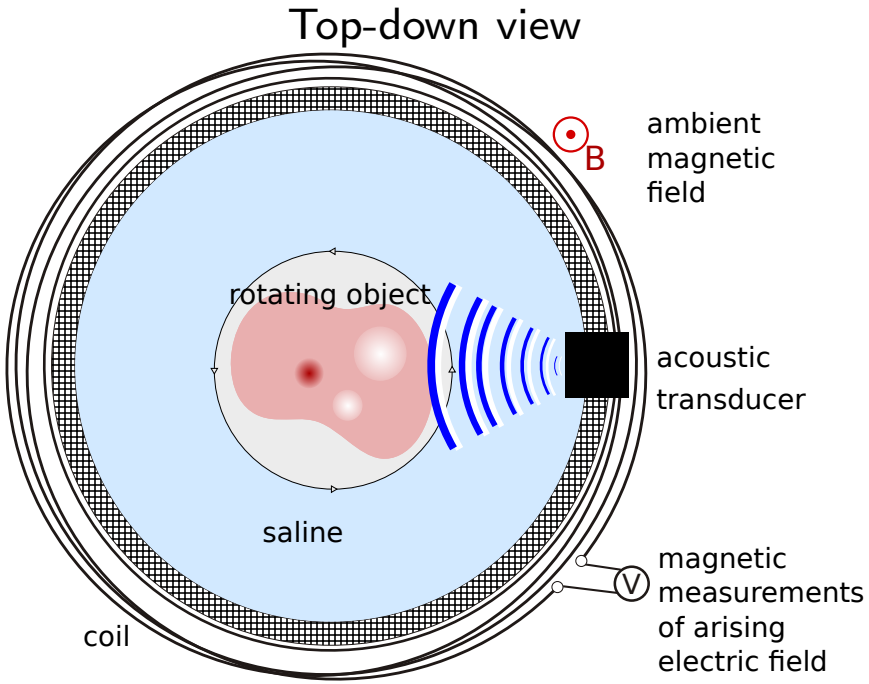
Magnetoacoustoelectric Tomography (MAET) with electrode detection

MAET is a hybrid modality designed to produce high resolution images of tissue conductivity



- Acoustic transducer excites free charges in specimen
- Moving charges interact with magnetic field, producing Lorentz currents
- Arising electric potential detected by electrodes

Magnetoacoustoelectric Tomography with coil pickup (MAET-?)



- Lorentz currents generated
- Utilizes a coil to detect the magnetic field produced by the Lorentz currents