POROSITY DETECTION FOR COMPOSITE MATERIALS USING INDUCTIVE RESONANCE

ABSTRACT OF THE DISCLOSURE

A non-destructive test apparatus includes a drive coil and a resonant coil in working relation to the drive coil. The non-destructive test apparatus includes a voltage source coupled to the drive coil. The voltage source is configured to apply an alternating current signal to the drive coil. The non-destructive test apparatus includes a sensor coupled to the resonant coil. The sensor is configured to output sensor data indicative of a voltage induced in the resonant coil by the alternating current signal applied to the drive coil. The non-destructive test apparatus also includes a processor coupled to the sensor to receive the sensor data from the sensor. The processor is configured to determine, based on the voltage, a porosity of an item positioned in working relation to the resonant coil.

[Figure 1]