

# Anthony J Peyton

## List of Publications by Year in descending order

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202  
papers

3,986  
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109321

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docs citations

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times ranked

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citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | A comparison of non-linear optimisation algorithms for recovering the conductivity depth profile of an electrically conductive block using eddy current inspection. NDT and E International, 2022, 125, 102571.         | 3.7 | 5         |
| 2  | Antenna Design Considerations for Ground Penetrating Radar Landmine Detection. IEEE Transactions on Antennas and Propagation, 2022, 70, 4273-4286.  | 5.1 | 7         |
| 3  | Measurement of GMPT Coefficients for Improved Object Characterisation in Metal Detection. IEEE Sensors Journal, 2022, 22, 2430-2446.  | 4.7 | 3         |
| 4  | Calibration of a Finite Element Forward Model in Eddy Current Inspection. IEEE Sensors Journal, 2022, 22, 10699-10707.  | 4.7 | 1         |
| 5  | Electromagnetic induction tomography. , 2022, , 77-125.   |     | 0         |
| 6  | A Novel Acceleration Method for Crack Computation Using Finite Element Analysis in Eddy Current Testing. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.   | 4.7 | 4         |
| 7  | A Study on the Magnetic Polarizability Tensors of Minimum Metal Anti-Personnel Landmines. , 2022, , .   |     | 0         |
| 8  | Detection of Metallic Objects in Mineralized Soil Using Magnetic Induction Spectroscopy. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 27-36.   | 6.3 | 5         |
| 9  | Measuring Coaxial Hole Size of Finite-Size Metallic Disk Based on a Dual-Constraint Integration Feature Using Multifrequency Eddy Current Testing. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-7. | 4.7 | 4         |
| 10 | Liftoff Tolerant Pancake Eddy-Current Sensor for the Thickness and Spacing Measurement of Nonmagnetic Plates. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.                                      | 4.7 | 11        |
| 11 | Inversion of Distance and Magnetic Permeability Based on Material-Independent and Liftoff Insensitive Algorithms Using Eddy Current Sensor. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.        | 4.7 | 4         |
| 12 | Thickness Measurement of Metallic Film Based on a High-Frequency Feature of Triple-Coil Electromagnetic Eddy Current Sensor. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.                       | 4.7 | 12        |
| 13 | Reducing the Induction Footprint of Ultra-Wideband Antennas for Ground-Penetrating Radar in Dual-Modality Detectors. IEEE Transactions on Antennas and Propagation, 2021, 69, 1293-1301.                                | 5.1 | 2         |
| 14 | Measuring Lift-Off Distance and Electromagnetic Property of Metal Using Dual-Frequency Linearity Feature. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.  | 4.7 | 10        |
| 15 | Determination of Surface Crack Orientation Based on Thin-Skin Regime Using Triple-Coil Drive "Pickup Eddy-Current Sensor. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.                          | 4.7 | 6         |
| 16 | Boundary-Element Analysis of Magnetic Polarization Tensor for Metallic Cylinder. IEEE Access, 2021, 9, 63250-63256.   | 4.2 | 1         |
| 17 | Thickness measurement of circular metallic film using single-frequency eddy current sensor. NDT and E International, 2021, 119, 102420.   | 3.7 | 13        |
| 18 | A Review of Passive and Active Ultra-Wideband Baluns for Use in Ground Penetrating Radar. Remote Sensing, 2021, 13, 1899.   | 4.0 | 6         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Lift-off invariant inductance of steels in multi-frequency eddy-current testing. NDT and E International, 2021, 121, 102458.   | 3.7 | 19        |
| 20 | High temperature magnetic characterisation of structural steels using Epstein frame. Measurement Science and Technology, 2021, 32, 125601.   | 2.6 | 6         |
| 21 | Electrical Resistivity Reconstruction of Graphite Moderator Bricks From Multi-Frequency Measurements and Artificial Neural Networks. IEEE Sensors Journal, 2021, 21, 17005-17016.  | 4.7 | 2         |
| 22 | Analysis of Tilt Effect on Notch Depth Profiling Using Thin-Skin Regime of Driver-Pickup Eddy-Current Sensor. Sensors, 2021, 21, 5536.   | 3.8 | 4         |
| 23 | Measuring the Magnetic Polarizability Tensor Using an Axial Multi-Coil Geometry. IEEE Sensors Journal, 2021, 21, 19322-19333.  | 4.7 | 10        |
| 24 | A high-frequency phase feature for the measurement of magnetic permeability using eddy current sensor. NDT and E International, 2021, 123, 102519.   | 3.7 | 16        |
| 25 | A novel design of window function modulated meander-line-coils EMATs for unidirectional Rayleigh waves generation and sidelobes suppression. NDT and E International, 2021, 123, 102501.                                       | 3.7 | 13        |
| 26 | Depth Evaluation for Metal Surface Defects by Eddy Current Testing Using Deep Residual Convolutional Neural Networks. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.                                    | 4.7 | 7         |
| 27 | Non-contact Assessment of Apple Condition using Magnetic Induction Spectroscopy: Preliminary Results and Indications. , 2021, , .  |     | 1         |
| 28 | A Class D Power Amplifier for Multifrequency Eddy Current Testing Based on Multisimultaneous-Frequency Selective Harmonic Elimination Pulsewidth Modulation. IEEE Transactions on Industrial Electronics, 2020, 67, 8799-8807. | 7.9 | 5         |
| 29 | Measurement of Ferromagnetic Slabs Permeability Based on a Novel Planar Triple-Coil Sensor. IEEE Sensors Journal, 2020, 20, 2904-2910.   | 4.7 | 31        |
| 30 | Methods of Controlling Lift-Off in Conductivity Invariance Phenomenon for Eddy Current Testing. IEEE Access, 2020, 8, 122413-122421.   | 4.2 | 13        |
| 31 | Measurement of the Radius of Metallic Plates Based on a Novel Finite Region Eigenfunction Expansion (FREE) Method. IEEE Sensors Journal, 2020, 20, 15099-15106.  | 4.7 | 17        |
| 32 | Measurements of Thickness for Metallic Plates With Co-Axial Holes Using a Novel Analytical Method With the Modified Integration Range. IEEE Access, 2020, 8, 198301-198306.  | 4.2 | 7         |
| 33 | Model-based Calibration of a Magnetic Induction Spectroscopy System for Absolute Conductivity Measurement. , 2020, , .   |     | 2         |
| 34 | Simultaneous Measurements of Wire Diameter and Conductivity Using a Combined Inductive and Capacitive Sensor. IEEE Sensors Journal, 2020, 20, 11617-11624.   | 4.7 | 11        |
| 35 | Conductivity Profiling of Graphite Moderator Bricks From Multifrequency Eddy Current Measurements. IEEE Sensors Journal, 2020, 20, 4840-4849.  | 4.7 | 13        |
| 36 | Real-time Measurement of Electrical Conductivity for Aluminium Wires Using a Novel Calibration Method. , 2020, , .   |     | 1         |

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|----|--|------|-----------|
| 37 | A Novel Perturbed Matrix Inversion Based Method for the Acceleration of Finite Element Analysis in Crack-Scanning Eddy Current NDT. IEEE Access, 2020, 8, 12438-12444.   | 4.2  | 24        |
| 38 | Design and construction of a bespoke system for the detection of buried, iron-rich meteorites in Antarctica. Antarctic Science, 2020, 32, 58-69.   | 0.9  | 3         |
| 39 | Thickness measurement of metallic plates with finite planar dimension using eddy current method. IEEE Transactions on Instrumentation and Measurement, 2020, , 1-1.  | 4.7  | 69        |
| 40 | Combining Electromagnetic Spectroscopy and Ground-Penetrating Radar for the Detection of Anti-Personnel Landmines. Sensors, 2019, 19, 3390.  | 3.8  | 21        |
| 41 | An Equivalent-Effect Phenomenon in Eddy Current Non-Destructive Testing of Thin Structures. IEEE Access, 2019, 7, 70296-70307.   | 4.2  | 23        |
| 42 | Thickness measurement of non-magnetic steel plates using a novel planar triple-coil sensor. NDT and E International, 2019, 107, 102148.  | 3.7  | 36        |
| 43 | Measurement of Permeability for Ferrous Metallic Plates Using a Novel Lift-Off Compensation Technique on Phase Signature. IEEE Sensors Journal, 2019, 19, 7440-7446.   | 4.7  | 46        |
| 44 | Determination of the Magnetic Permeability, Electrical Conductivity, and Thickness of Ferrite Metallic Plates Using a Multifrequency Electromagnetic Sensing System. IEEE Transactions on Industrial Informatics, 2019, 15, 4111-4119. | 11.3 | 73        |
| 45 | Magnetic characterisation of grain size and precipitate distribution by major and minor BH loop measurements. Journal of Magnetism and Magnetic Materials, 2019, 481, 55-67.   | 2.3  | 15        |
| 46 | Investigating the Performance of Bi-Static GPR Antennas for Near-Surface Object Detection. Sensors, 2019, 19, 170.   | 3.8  | 9         |
| 47 | The Effects of Source Impedance on the Time-Domain Performance of UWB Bowtie Antennas. , 2019, , .   |      | 2         |
| 48 | Defect Feature Extraction in Eddy Current Testing Based on Convolutional Sparse Coding. , 2019, , .  |      | 2         |
| 49 | GPR Bowtie Antennas with Reduced Induction Footprints for Dual-Modality Detectors. , 2019, , .   |      | 2         |
| 50 | Threat Identification in Humanitarian Demining Using Machine Learning and Spectroscopic Metal Detection. Lecture Notes in Computer Science, 2019, , 542-549.   | 1.3  | 3         |
| 51 | Classification of Nonferrous Metals Using Magnetic Induction Spectroscopy. IEEE Transactions on Industrial Informatics, 2018, 14, 3477-3485.   | 11.3 | 39        |
| 52 | On the magnetic polarizability tensor of US coinage. Measurement Science and Technology, 2018, 29, 035501.   | 2.6  | 16        |
| 53 | Custom edgeâ€element FEM solver and its application to eddyâ€current simulation of realistic 2Mâ€element human brain phantom. Bioelectromagnetics, 2018, 39, 604-616.  | 1.6  | 9         |
| 54 | Simulation of Ground Penetrating Radar for Anti-personnel Landmine Detection. , 2018, , .  |      | 2         |

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|----|--|-----|-----------|
| 55 | A Comparison of Solid and Loaded Bowtie Antennas in GPR for the Detection of Buried Landmines. , 2018, , .   |     | 3         |
| 56 | Imaging x70 weld cross-section using electromagnetic testing. NDT and E International, 2018, 98, 155-160.  | 3.7 | 21        |
| 57 | Conductivity Lift-off Invariance and measurement of permeability for ferrite metallic plates. NDT and E International, 2018, 95, 36-44.  | 3.7 | 59        |
| 58 | Study of asymmetric gradiometer sensor configurations for eddy current based non-destructive testing in an industrial environment. NDT and E International, 2018, 100, 1-10.                 | 3.7 | 9         |
| 59 | Three-Dimensional Electromagnetic Mixing Models for Dual-Phase Steel Microstructures. Applied Sciences (Switzerland), 2018, 8, 529.  | 2.5 | 11        |
| 60 | Reducing the Lift-Off Effect on Permeability Measurement for Magnetic Plates From Multifrequency Induction Data. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 167-174.    | 4.7 | 73        |
| 61 | A Very-Low-Frequency Electromagnetic Inductive Sensor System for Workpiece Recognition Using the Magnetic Polarizability Tensor. IEEE Sensors Journal, 2017, 17, 2703-2712.                  | 4.7 | 20        |
| 62 | Acceleration of Frequency Sweeping in Eddy-Current Computation. IEEE Transactions on Magnetics, 2017, 53, 1-8.   | 2.1 | 45        |
| 63 | Detection of creep degradation during pressure vessel testing using electromagnetic sensor technology. Materials at High Temperatures, 2017, 34, 448-457.                                    | 1.0 | 5         |
| 64 | Optimized Setup and Protocol for Magnetic Domain Imaging with <i>In Situ</i> Hysteresis Measurement. Journal of Visualized Experiments, 2017, , .  | 0.3 | 1         |
| 65 | Modeling and experimental study of a multi-frequency electromagnetic sensor system for rail decarburisation measurement. NDT and E International, 2017, 86, 1-6.                             | 3.7 | 10        |
| 66 | Electromagnetic tensor spectroscopy for sorting of shredded metallic scrap. , 2017, , .  |     | 4         |
| 67 | Contactless Inductive Bubble Detection in a Liquid Metal Flow. Sensors, 2016, 16, 63.  | 3.8 | 15        |
| 68 | ABSOLUTE IMAGING OF LOW CONDUCTIVITY MATERIAL DISTRIBUTIONS USING NONLINEAR RECONSTRUCTION METHODS IN MAGNETIC INDUCTION TOMOGRAPHY. Progress in Electromagnetics Research, 2016, 155, 1-18. | 4.4 | 14        |
| 69 | Evaluation of the thin-skin approximation boundary element method for electromagnetic induction scattering problems. , 2016, , .   |     | 4         |
| 70 | Spectroscopic identification of anti-personnel mine surrogates from planar sensor measurements. , 2016, , .  |     | 8         |
| 71 | Steel Casting Tomography: Contactless Inductive Flow and Mutual Inductance. , 2016, , 3320-3332.   |     | 0         |
| 72 | Simulation and experimental verification of a meander-line-coil electromagnetic acoustic transducers (EMATs). , 2016, , .  |     | 0         |

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|----|--|-----|-----------|
| 73 | A methodology for the optimisation of a mm-wave scanner. , 2016, , .   |     | 2         |
| 74 | A Novel Compensation Algorithm for Thickness Measurement Immune to Lift-Off Variations Using Eddy Current Method. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 2773-2779.     | 4.7 | 72        |
| 75 | Sparse electromagnetic tomography based on matching pursuit algorithms. , 2016, , .  |     | 4         |
| 76 | Simulation of ultrasonic and EMAT arrays using FEM and FDTD. Ultrasonics, 2016, 66, 154-165.   | 3.9 | 36        |
| 77 | Magnetic Polarizability Tensor Spectroscopy for Low Metal Anti-Personnel Mine Surrogates. IEEE Sensors Journal, 2016, 16, 3775-3783.   | 4.7 | 36        |
| 78 | Determining the Electromagnetic Polarizability Tensors of Metal Objects During In-Line Scanning. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 1172-1181.                      | 4.7 | 13        |
| 79 | Magnetic characterisation of microstructural feature distribution in P9 and T22 steels by major and minor BH loop measurements. Journal of Magnetism and Magnetic Materials, 2016, 401, 579-592. | 2.3 | 13        |
| 80 | Towards metal detection and identification for humanitarian demining using magnetic polarizability tensor spectroscopy. Measurement Science and Technology, 2015, 26, 115501.                    | 2.6 | 16        |
| 81 | Improving reliability for classification of metallic objects using a WTMD portal. Measurement Science and Technology, 2015, 26, 105103.  | 2.6 | 10        |
| 82 | Prediction of the asymptotical magnetic polarization tensors for cylindrical samples using the boundary element method. , 2015, , .  |     | 3         |
| 83 | Rapid non-contact relative permittivity measurement of fruits and vegetables using magnetic induction spectroscopy. , 2015, , .  |     | 4         |
| 84 | Inductive detection of gas bubbles in a liquid metal flow: A contactless and non invasive methode. , 2015, , .   |     | 0         |
| 85 | Non-contact multi-frequency magnetic induction spectroscopy system for industrial-scale bio-impedance measurement. Measurement Science and Technology, 2015, 26, 035102.                         | 2.6 | 41        |
| 86 | Electromagnetic evaluation of the microstructure of Grade 91 tubes/pipes. International Journal of Pressure Vessels and Piping, 2015, 132-133, 65-71.  | 2.6 | 14        |
| 87 | Measurement system for determining the magnetic polarizability tensor of small metal targets. , 2015, , .  |     | 7         |
| 88 | Determination of material and geometric properties of metallic objects using the magnetic polarisability tensor. , 2015, , .   |     | 3         |
| 89 | Design of electromagnetic sensor arrays optimised for inversion of the magnetic polarisability tensor. , 2015, , .   |     | 6         |
| 90 | Determining the electromagnetic polarizability tensors of metal objects from rotation measurements. , 2015, , .  |     | 1         |

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|-----|---|-----|-----------|
| 91  | GPR combined with a positioning system to detect anti-personnel landmines. , 2015, , .  |     | 6         |
| 92  | Development and deployment of online multifrequency electromagnetic system to monitor steel hot transformation on runout table of hot strip mill. Ironmaking and Steelmaking, 2014, 41, 685-693.                          | 2.1 | 7         |
| 93  | KNN classification of metallic targets using the magnetic polarizability tensor. Measurement Science and Technology, 2014, 25, 055105.  | 2.6 | 25        |
| 94  | Visualization of the Flow in a Mold of Continuous Casting by Contactless Inductive Flow Tomography and Mutual Inductance Tomography. Steel Research International, 2014, 85, 1266-1273.                                   | 1.8 | 11        |
| 95  | Differential permeability behaviour of P9 and T22 power station Steels. Journal of Magnetism and Magnetic Materials, 2014, 352, 81-90.  | 2.3 | 13        |
| 96  | On the Low-Frequency Electromagnetic Responses of In-Line Metal Detectors to Metal Contaminants. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 3181-3189.   | 4.7 | 26        |
| 97  | Determination of the magnetic polarizability tensor and three dimensional object location for multiple objects using a walk-through metal detector. Measurement Science and Technology, 2014, 25, 055107.                 | 2.6 | 18        |
| 98  | Quantification of the phase fraction in steel using an electromagnetic sensor. NDT and E International, 2014, 67, 31-35.  | 3.7 | 26        |
| 99  | Measurement of the magnetic properties of P9 and T22 steel taken from service in power station. Journal of Magnetism and Magnetic Materials, 2014, 360, 52-58.  | 2.3 | 30        |
| 100 | Subsurface cracks in AGR graphite bricks. NDT and E International, 2014, 66, 72-81.   | 3.7 | 4         |
| 101 | Impulse radar imaging system for concealed object detection. , 2013, , .  |     | 1         |
| 102 | Three-dimensional object location and inversion of the magnetic polarizability tensor at a single frequency using a walk-through metal detector. Measurement Science and Technology, 2013, 24, 045102.                    | 2.6 | 50        |
| 103 | The 3-D Positioning of Wireless Sensors in Dispersive Propagation Media. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 2338-2352.   | 4.7 | 2         |
| 104 | Magnetic Evaluation of Microstructure Changes in 9Cr-1Mo and 2.25Cr-1Mo Steels Using Electromagnetic Sensors. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5897-5909. | 2.2 | 6         |
| 105 | Prediction of interlamellar pearlite spacing of tyre bead wires after patenting using electromagnetic techniques. Insight: Non-Destructive Testing and Condition Monitoring, 2013, 55, 132-135.                           | 0.6 | 3         |
| 106 | Scaled Experimental Verification of Single-Well Induction Conductivity Measurement Through Nonmagnetic Casing. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 1199-1206.                                 | 4.7 | 9         |
| 107 | Non-contact EM measurement of the properties of power station steels taken from service. , 2013, , .  |     | 1         |
| 108 | Classification of metallic targets using a single frequency component of the magnetic polarisability tensor. Journal of Physics: Conference Series, 2013, 450, 012038.  | 0.4 | 7         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 109 | Magnetic sensing for microstructural assessment of power station steels: Magnetic Barkhausen noise and minor loop measurements. Journal of Physics: Conference Series, 2013, 450, 012041.   | 0.4 | 3         |
| 110 | Magnetic sensing for microstructural assessment of power station steels: Differential permeability and magnetic hysteresis. Journal of Physics: Conference Series, 2013, 450, 012042.   | 0.4 | 0         |
| 111 | Investigation of the significance of the 'body effect' on sensitivity to metallic objects in a walk-through metal detector. Journal of Physics: Conference Series, 2013, 450, 012037.   | 0.4 | 1         |
| 112 | Measurement of electromagnetic properties of power station steels. , 2012, , .  |     | 2         |
| 113 | Liquid metal experiments with swirling flow submerged entry nozzle. Ironmaking and Steelmaking, 2012, 39, 1-9.  | 2.1 | 23        |
| 114 | Non-contact measurement of water surface level from phase values of inductive measurements. , 2012, , .   |     | 6         |
| 115 | Measurement of electromagnetic properties of power station steels. NDT and E International, 2012, 51, 135-141.  | 3.7 | 11        |
| 116 | Evaluating the conductivity distribution in isotropic polycrystalline graphite using spectroscopic eddy current technique for monitoring weight loss in advanced gas cooled reactors. NDT and E International, 2012, 51, 150-159.   | 3.7 | 13        |
| 117 | Induction conductivity measurement of surrounding low-conductive medium from copper tube &#x2014; Experimental verification. , 2012, , .  |     | 1         |
| 118 | Evaluation of rail decarburisation depth using a H-shaped electromagnetic sensor. NDT and E International, 2012, 46, 63-69.   | 3.7 | 10        |
| 119 | Time efficient auto-focussing algorithms for ultrasonic inspection of dual-layered media using Full Matrix Capture. NDT and E International, 2012, 47, 43-50.   | 3.7 | 63        |
| 120 | Use of electromagnetic induction tomography for monitoring liquid metal/gas flow regimes on a model of an industrial steel caster. Measurement Science and Technology, 2011, 22, 015501.  | 2.6 | 33        |
| 121 | Non-contact characterisation of conductivity gradient in isotropic polycrystalline graphite using inductance spectroscopy measurements. Insight: Non-Destructive Testing and Condition Monitoring, 2011, 53, 90-95.   | 0.6 | 5         |
| 122 | Improvement of signal-to-noise ratio and image stability in magnetic inductance tomography by exploiting transient response analysis. IET Image Processing, 2011, 5, 508.   | 2.5 | 2         |
| 123 | A Three-Dimensional Positioning Algorithm for Networked Wireless Sensors. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 1423-1432.  | 4.7 | 11        |
| 124 | Combined Electromagnetic Tomography for Determining Two-phase Flow Characteristics in the Submerged Entry Nozzle and in the Mold of a Continuous Casting Model. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2011, 42, 1201-1210. | 2.1 | 59        |
| 125 | Electromagnetic inspection of a two-phase flow of GalSn and argon. Flow Measurement and Instrumentation, 2011, 22, 10-16.   | 2.0 | 42        |
| 126 | Modelling and experimental study of an electromagnetic sensor with an H-shaped ferrite core used for monitoring the hot transformation of steel in an industrial environment. NDT and E International, 2011, 44, 547-552.   | 3.7 | 13        |



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|-----|---|-----|-----------|
| 127 | High-resolution imaging of dielectric profiles by using a time-domain ultra wideband radar sensor. Measurement: Journal of the International Measurement Confederation, 2011, 44, 859-870.                                  | 5.0 | 9         |
| 128 | Overview of non-destructive evaluation of steel microstructures using multifrequency electromagnetic sensors. Ironmaking and Steelmaking, 2011, 38, 510-517.  | 2.1 | 8         |
| 129 | Performance of a FPGA-based Direct Digitising Signal Measurement module for MIT. Journal of Physics: Conference Series, 2010, 224, 012017.  | 0.4 | 10        |
| 130 | Evaluation of the effects of the screen based on an analytical solution of a simplified MIT system. Journal of Physics: Conference Series, 2010, 224, 012154.   | 0.4 | 4         |
| 131 | The application of a priori structural information based regularization in image reconstruction in magnetic induction tomography. Journal of Physics: Conference Series, 2010, 224, 012048.                                 | 0.4 | 1         |
| 132 | Assessing the feasibility of detecting a hemorrhagic type stroke using a 16 channel magnetic induction system. Journal of Physics: Conference Series, 2010, 224, 012047.  | 0.4 | 5         |
| 133 | Measurement of decarburisation of steel rods with an electromagnetic sensor using an analytical model. NDT and E International, 2010, 43, 667-670.  | 3.7 | 4         |
| 134 | Feature detection and monitoring of eddy current imaging data by means of wavelet based singularity analysis. NDT and E International, 2010, 43, 687-694.   | 3.7 | 10        |
| 135 | A Method to Solve the Forward Problem in Magnetic Induction Tomography Based on the Weakly Coupled Field Approximation. IEEE Transactions on Biomedical Engineering, 2010, 57, 914-921.                                     | 4.2 | 32        |
| 136 | Sensitivity Formulation Including Velocity Effects for Electromagnetic Induction Systems. IEEE Transactions on Magnetics, 2010, 46, 1172-1176.  | 2.1 | 41        |
| 137 | Modelling the electromagnetic response of two-phase steel microstructures. NDT and E International, 2010, 43, 305-315.  | 3.7 | 17        |
| 138 | Non-contact characterization of hybrid aluminium/carbon-fibre-reinforced plastic sheets using multi-frequency eddy-current sensors. Measurement Science and Technology, 2010, 21, 105708.                                   | 2.6 | 11        |
| 139 | Analytical and FEM modelling of an electromagnetic sensor with an H-shaped ferrite core used for monitoring the hot transformation steel. , 2010, , .   |     | 0         |
| 140 | Monitoring microstructure changes in rod online by using induction spectroscopy. Ironmaking and Steelmaking, 2010, 37, 135-139.   | 2.1 | 12        |
| 141 | Non-contact characterisation of Carbon Fibre Reinforced Plastics in hybrid aluminium / CFRP sheets using multi-frequency eddy current sensors. , 2009, , .  |     | 2         |
| 142 | Measurement of decarburisation of steel rods with an electromagnetic sensor using an analytical model. , 2009, , .  |     | 0         |
| 143 | Sample-interpolation timing: an optimized technique for the digital measurement of time of flight for $\hat{p}^3$ rays and neutrons at relatively low sampling rates. Measurement Science and Technology, 2009, 20, 015104. | 2.6 | 8         |
| 144 | Theoretical and numerical approaches to the forward problem and sensitivity calculation of a novel contactless inductive flow tomography (CIFT). Measurement Science and Technology, 2009, 20, 105503.                      | 2.6 | 22        |

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|-----|---|-----|-----------|
| 145 | Noncontact Characterization of Carbon-Fiber-Reinforced Plastics Using Multifrequency Eddy Current Sensors. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 738-743.   | 4.7 | 73        |
| 146 | Characterization of Decarburization of Steels Using a Multifrequency Electromagnetic Sensor: Experiment and Modeling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 745-756. | 2.2 | 23        |
| 147 | Measurement of permeability and ferrite/austenite phase fraction using a multi-frequency electromagnetic sensor. NDT and E International, 2009, 42, 64-68.  | 3.7 | 46        |
| 148 | Improvement of signal to noise ratio and frame capture rate in magnetic inductance tomography (MIT) by exploiting transient process analysis. , 2009, , .   |     | 2         |
| 149 | A feasibility study on the delectability of Edema using Magnetic Induction Tomography using an Analytical Model. IFMBE Proceedings, 2009, , 736-739.  | 0.3 | 3         |
| 150 | Thickness Measurement of Metallic Plates With an Electromagnetic Sensor Using Phase Signature Analysis. IEEE Transactions on Instrumentation and Measurement, 2008, 57, 1803-1807.  | 4.7 | 54        |
| 151 | Simultaneous Noncontact Measurement of Water Level and Conductivity. IEEE Transactions on Instrumentation and Measurement, 2008, 57, 2665-2669.   | 4.7 | 63        |
| 152 | Computation of 3-D Sensitivity Coefficients in Magnetic Induction Tomography Using Boundary Integral Equations and Radial Basis Functions. IEEE Transactions on Magnetics, 2008, 44, 2268-2276.                                 | 2.1 | 5         |
| 153 | A Model for the Forward Problem in Magnetic Induction Tomography Using Boundary Integral Equations. IEEE Transactions on Magnetics, 2008, 44, 2262-2267.  | 2.1 | 36        |
| 154 | Feasibility study of NIR diffuse optical tomography on agricultural produce. Postharvest Biology and Technology, 2008, 48, 223-230.   | 6.0 | 20        |
| 155 | A Positioning Algorithm for Wireless Sensors in Rich Multipath Environments. IEEE Microwave and Wireless Components Letters, 2008, 18, 644-646.   | 3.2 | 10        |
| 156 | Application of a single step temporal imaging of magnetic induction tomography for metal flow visualisation. Insight: Non-Destructive Testing and Condition Monitoring, 2008, 50, 25-29.  | 0.6 | 9         |
| 157 | Calculation of the forward problem for absolute image reconstruction in MIT. Physiological Measurement, 2008, 29, S455-S464.  | 2.1 | 37        |
| 158 | Development of multiple frequency electromagnetic induction systems for steel flow visualization. Measurement Science and Technology, 2008, 19, 094008.   | 2.6 | 34        |
| 159 | Time-domain reconstruction using sensitivity coefficients for limited view ultrawide band tomography. Review of Scientific Instruments, 2007, 78, 084703.   | 1.3 | 3         |
| 160 | Thickness Measurement of Metallic Plates with an Electromagnetic Sensor Using Phase Signature Analysis. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .                               | 0.0 | 3         |
| 161 | Non-Contact Characterisation of Carbon-Fibre-Reinforced Plastics (CFRP) Using Multi-frequency Eddy Current Sensors. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .                   | 0.0 | 6         |
| 162 | Measurement of Permeability and Ferrite/austenite Phase Fraction Using a Multi-frequency Electromagnetic Sensor. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .                      | 0.0 | 0         |

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|-----|---|-----|-----------|
| 163 | Dynamic imaging in electrical capacitance tomography and electromagnetic induction tomography using a Kalman filter. Measurement Science and Technology, 2007, 18, 3287-3294.                             | 2.6 | 64        |
| 164 | Thickness measurement of non-magnetic plates using multi-frequency eddy current sensors. NDT and E International, 2007, 40, 43-48.  | 3.7 | 145       |
| 165 | The Development of a Multifrequency Electromagnetic Instrument for Monitoring the Phase Transformation of Hot Strip Steel. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 879-886.       | 4.7 | 36        |
| 166 | Image Reconstruction for High-Contrast Conductivity Imaging in Mutual Induction Tomography for Industrial Applications. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 2024-2032.        | 4.7 | 40        |
| 167 | Analysis of the Liftoff Effect of Phase Spectra for Eddy Current Sensors. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 2775-2781.  | 4.7 | 57        |
| 168 | Exploring the relationship between ferrite fraction and morphology and the electromagnetic properties of steel. Journal of Materials Science, 2007, 42, 6854-6861.  | 3.7 | 46        |
| 169 | A multi-frequency impedance analysing instrument for eddy current testing. Measurement Science and Technology, 2006, 17, 393-402.   | 2.6 | 53        |
| 170 | A planar EMT system for the detection of faults on thin metallic plates. Measurement Science and Technology, 2006, 17, 2130-2135.   | 2.6 | 87        |
| 171 | Electromagnetic visualisation of steel flow in continuous casting nozzles. Ironmaking and Steelmaking, 2006, 33, 357-361.   | 2.1 | 8         |
| 172 | Hardware and software design for an electromagnetic induction tomography (EMT) system for high contrast metal process applications. Measurement Science and Technology, 2006, 17, 111-118.                | 2.6 | 101       |
| 173 | Eddy current measurements of electrical conductivity and magnetic permeability of porous metals. NDT and E International, 2006, 39, 562-568.  | 3.7 | 57        |
| 174 | Eddy Current Measurement of the Electrical Conductivity and Porosity of Metal Foams. IEEE Transactions on Instrumentation and Measurement, 2006, 55, 570-576.   | 4.7 | 37        |
| 175 | A three-dimensional inverse finite-element method applied to experimental eddy-current imaging data. IEEE Transactions on Magnetics, 2006, 42, 1560-1567.   | 2.1 | 65        |
| 176 | Evaluating the Permeability Distribution of a Layered Conductor by Inductance Spectroscopy. IEEE Transactions on Magnetics, 2006, 42, 3645-3651.  | 2.1 | 27        |
| 177 | Determining the Step-change Conductivity Profile within Layered Metal Structures Using Inductance Spectroscopy. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , . | 0.0 | 2         |
| 178 | Simultaneous Non-contact Measurement of Water Level and Conductivity. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .   | 0.0 | 8         |
| 179 | Modelling of the effect of microstructural variation on inductive sensor measurements of phase transformation in steel. Journal of Physics: Conference Series, 2005, 15, 131-136.                         | 0.4 | 2         |
| 180 | Measurement of the electrical conductivity of open-celled aluminium foam using non-contact eddy current techniques. NDT and E International, 2005, 38, 359-367.   | 3.7 | 34        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 181 | Impedance spectroscopy for remote analysis of steel microstructures. Ironmaking and Steelmaking, 2005, 32, 381-384.  | 2.1 | 9         |
| 182 | Electromagnetic techniques for imaging the cross-section distribution of molten steel flow in the continuous casting nozzle. IEEE Sensors Journal, 2005, 5, 224-232.   | 4.7 | 52        |
| 183 | Imaging the continuous conductivity profile within layered metal structures using inductance spectroscopy. IEEE Sensors Journal, 2005, 5, 161-166.   | 4.7 | 57        |
| 184 | Simultaneous Measurement of Distance and Thickness of a Thin Metal Plate With an Electromagnetic Sensor Using a Simplified Model. IEEE Transactions on Instrumentation and Measurement, 2004, 53, 1335-1338. | 4.7 | 87        |
| 185 | Measurement and modeling of the electromagnetic response to phase transformation in steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 965-972.        | 2.2 | 3         |
| 186 | Measurement and modeling of the electromagnetic response to phase transformation in steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 965-972.        | 2.2 | 18        |
| 187 | Chemical engineering applications of electrical process tomography. Sensors and Actuators B: Chemical, 2003, 92, 17-24.  | 7.8 | 127       |
| 188 | Imaging molten steel flow profiles. Measurement Science and Technology, 2001, 12, 1132-1138.   | 2.6 | 39        |
| 189 | Imaging the transformation of hot strip steel using magnetic techniques. , 2001, 4188, 212.  |     | 0         |
| 190 | The application of parametric 3D finite element modelling techniques to evaluate the performance of a magnetic sensor system. Sensors and Actuators A: Physical, 2001, 93, 109-116.                          | 4.1 | 5         |
| 191 | Imaging the transformation of hot strip steel using magnetic techniques. Journal of Electronic Imaging, 2001, 10, 669.   | 0.9 | 6         |
| 192 | Using electromagnetic methods to monitor the transformation of steel samples. Transactions of the Institute of Measurement and Control, 2001, 23, 21-29.   | 1.7 | 20        |
| 193 | Imaging molten steel flow profiles. , 2001, , .  |     | 1         |
| 194 | Unique broad-spectrum neutron sensing instrument. Review of Scientific Instruments, 2001, 72, 2043-2047.   | 1.3 | 5         |
| 195 | Image reconstruction for electromagnetic inductance tomography employing a parameterized finite-element-based forward model. , 2001, , .   |     | 2         |
| 196 | Evaporation of Sessile Drops: Application of the Quartz Crystal Microbalance. Langmuir, 2000, 16, 4024-4033.   | 3.5 | 34        |
| 197 | Shunt bootstrapping technique to improve bandwidth of transimpedance amplifiers. Electronics Letters, 1999, 35, 369.   | 1.0 | 13        |
| 198 | Development of sensor arrays for electromagnetic inductive tomography: compensation of large background signal values. Transactions of the Institute of Measurement and Control, 1998, 20, 195-202.          | 1.7 | 3         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 199 | An overview of electromagnetic inductance tomography: description of three different systems. Measurement Science and Technology, 1996, 7, 261-271.              | 2.6 | 172       |
| 200 | Electromagnetic Imaging Using Mutual Inductance Tomography: Potential for process applications. Particle and Particle Systems Characterization, 1995, 12, 68-74. | 2.3 | 18        |
| 201 | Circuit for Monitoring the Median Frequency of the Spectrum of the Surface EMG Signal. IEEE Transactions on Biomedical Engineering, 1987, BME-34, 391-394.       | 4.2 | 8         |
| 202 | Determination of the moment of inertia of limb segments by a simple method. Journal of Biomechanics, 1986, 19, 405-410.  | 2.1 | 12        |