

Tomasz Chady

List of Publications by Year in descending order

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109
papers

752
citations

567281

15
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642732

23
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117
all docs

117
docs citations

117
times ranked

626
citing authors

#	ARTICLE	IF	CITATIONS
1	Detection and Inspection of Steel Bars in Reinforced Concrete Structures Using Active Infrared Thermography with Microwave Excitation and Eddy Current Sensors. <i>Sensors</i> , 2016, 16, 234.	3.8	60
2	Crack detection and recognition using an eddy current differential probe. <i>IEEE Transactions on Magnetism</i> , 1999, 35, 1849-1852.	2.1	44
3	Joint Scanning Laser Thermography Defect Detection Method for Carbon Fiber Reinforced Polymer. <i>IEEE Sensors Journal</i> , 2020, 20, 328-336.	4.7	41
4	Terahertz detection and identification of defects in layered polymer composites and composite coatings. <i>Nondestructive Testing and Evaluation</i> , 2013, 28, 28-43.	2.1	40
5	Full wave numerical modelling of terahertz systems for nondestructive evaluation of dielectric structures. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 2013, 32, 736-749.	0.9	30
6	CFRP Impact Damage Inspection Based on Manifold Learning Using Ultrasonic Induced Thermography. <i>IEEE Transactions on Industrial Informatics</i> , 2019, 15, 2648-2659.	11.3	30
7	Multi-frequency exciting and spectrogram-based ECT method. <i>Journal of Magnetism and Magnetic Materials</i> , 2000, 215-216, 700-703.	2.3	25
8	Optimization of eddy-current sensor for multifrequency systems. <i>IEEE Transactions on Magnetism</i> , 2003, 39, 1313-1316.	2.1	23
9	Natural crack recognition using inverse neural model and multi-frequency eddy current method. <i>IEEE Transactions on Magnetism</i> , 2001, 37, 2797-2799.	2.1	22
10	Terahertz and Thermal Testing of Glass-Fiber Reinforced Composites with Impact Damages. <i>Journal of Sensors</i> , 2012, 2012, 1-14.	1.1	21
11	Neural network models of eddy current multi-frequency system for nondestructive testing. <i>IEEE Transactions on Magnetism</i> , 2000, 36, 1724-1727.	2.1	19
12	Testing of glass-fiber reinforced composite materials using terahertz technique. <i>International Journal of Applied Electromagnetics and Mechanics</i> , 2010, 33, 1599-1605.	0.6	18
13	Flexible Floral Eddy Current Probe for Detecting Flaws in Metal Plate. <i>IEEE Sensors Journal</i> , 2020, 20, 10521-10529.	4.7	18
14	In-Line Inspection Tool with Eddy Current Instrumentation for Fatigue Crack Detection. <i>Sensors</i> , 2018, 18, 2161.	3.8	17
15	Crack size and shape determination by moving magnetic field type sensor. <i>IEEE Transactions on Magnetism</i> , 1998, 34, 1252-1254.	2.1	15
16	Evaluation of stress loaded steel samples using GMR magnetic field sensor. <i>IEEE Sensors Journal</i> , 2002, 2, 488-493.	4.7	15
17	Fusion of electromagnetic inspection methods for evaluation of stress-loaded steel samples. <i>IEEE Transactions on Magnetism</i> , 2005, 41, 3721-3723.	2.1	12
18	Flaws Identification Using an Approximation Function and Artificial Neural Networks. <i>IEEE Transactions on Magnetism</i> , 2007, 43, 1769-1772.	2.1	12

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19	Time reversal pulsed terahertz inspection of dielectric structures. International Journal of Applied Electromagnetics and Mechanics, 2012, 39, 427-433.	0.6	12
20	Automated multisource electromagnetic inspection of fibre-cement boards. Automation in Construction, 2018, 94, 383-394.	9.8	12
21	Neural network approach to crack identification. International Journal of Applied Electromagnetics and Mechanics, 1998, 9, 391-398.	0.6	11
22	Evaluation of fatigue-loaded steel samples using fusion of electromagnetic methods. Journal of Magnetism and Magnetic Materials, 2007, 310, 2737-2739.	2.3	11
23	COMPARISON OF SELECTED WELD DEFECT EXTRACTION METHODS. AIP Conference Proceedings, 2008, , .	0.4	11
24	Identification of rebars in a reinforced mesh using eddy current method. AIP Conference Proceedings, 2016, , .	0.4	11
25	Testing of composite materials using advanced NDT methods. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2011, 30, 1260-1270.	0.9	10
26	Eddy Current Transducer with Rotating Permanent Magnets to Test Planar Conducting Plates. Sensors, 2019, 19, 1408.	3.8	10
27	Numerical modelling and experimental evaluation of the composites using active infrared thermography with forced cooling. Quantitative InfraRed Thermography Journal, 2020, 17, 107-129.	4.2	9
28	Inspection of reinforcement concrete structures with active infrared thermography. AIP Conference Proceedings, 2017, , .	0.4	8
29	A family of matrix type sensors for detection of slight flaws in conducting plates. IEEE Transactions on Magnetics, 1999, 35, 3655-3657.	2.1	7
30	Electromagnetic system for nondestructive evaluation of train hollow axles. , 2013, , .		7
31	Stress evaluation in non-oriented electrical steel samples by observation of vector magnetic flux under static and rotating field conditions. International Journal of Applied Electromagnetics and Mechanics, 2014, 44, 339-347.	0.6	7
32	The Application of Rough Sets Theory to Design of Weld Defect Classifiers. Journal of Nondestructive Evaluation, 2017, 36, 1.	2.4	7
33	Extended Damage Detection and Identification in Aircraft Structure Based on Multifrequency Eddy Current Method and Mutual Image Similarity Assessment. Materials, 2021, 14, 4452.	2.9	7
34	Magnetic force induced vibration evaluation (M5) method for frequency analysis of rebar-debonding in reinforced concrete. Measurement: Journal of the International Measurement Confederation, 2021, 182, 109655.	5.0	7
35	Pulsed Multifrequency Excitation and Spectrogram Eddy Current Testing (PMFES-ECT) for Nondestructive Evaluation of Conducting Materials. Materials, 2021, 14, 5311.	2.9	7
36	Impact of Magnetization on the Evaluation of Reinforced Concrete Structures Using DC Magnetic Methods. Materials, 2022, 15, 857.	2.9	7

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37	Identification of three-dimensional distribution of metal particles using electromagnetic tomography system. Journal of Materials Processing Technology, 2007, 181, 177-181.	6.3	6
38	Data Fusion From Multidirectional Remanent Flux Leakage Transducers for Nondestructive Testing of Stress- and Fatigue-Loaded Steel Samples. IEEE Transactions on Magnetics, 2008, 44, 3285-3288.	2.1	6
39	Observation of Material Degradation under Fatigue and Static Loading Condition Using Selected Electromagnetic NDT Methods. Materials Science Forum, 0, 721, 120-126.	0.3	6
40	Terahertz examination of fatigue loaded composite materials. International Journal of Applied Electromagnetics and Mechanics, 2014, 45, 613-619.	0.6	6
41	Magnetic Recording Method (MRM) for Nondestructive Evaluation of Ferromagnetic Materials. Materials, 2022, 15, 630.	2.9	6
42	IMAGE AND SIGNAL PROCESSING ALGORITHMS FOR THZ IMAGING OF COMPOSITE MATERIALS. , 2010, , .		5
43	Detection and classification of weld defects in industrial radiography with use of advanced AI methods. , 2013, , .		5
44	Multisource system for NDT of welded elements exploited in aircraft industry. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2016, 35, 1478-1492.	0.9	5
45	High sensitivity differential eddy current transducer. International Journal of Applied Electromagnetics and Mechanics, 2007, 25, 369-373.	0.6	4
46	DATA FUSION OF EDDY CURRENT NDT SIGNALS. AIP Conference Proceedings, 2008, , .	0.4	4
47	Analysis of complex differential eddy current transducer for deep flaws evaluation. Nondestructive Testing and Evaluation, 2009, 24, 61-68.	2.1	4
48	Knowledge extraction algorithms dedicated for identification of steel bars in reinforced concrete structures. AIP Conference Proceedings, 2014, , .	0.4	4
49	Examining Ferromagnetic Materials Subjected to a Static Stress Load Using the Magnetic Method. Materials, 2021, 14, 3455.	2.9	4
50	Flaws Identification Using Eddy Current Differential Transducer and Artificial Neural Networks. AIP Conference Proceedings, 2006, , .	0.4	3
51	AUTOMATED DEFECT CLASSIFICATION USING AN ARTIFICIAL NEURAL NETWORK. , 2009, , .		3
52	EXTREMELY SHORT IMPULSE EDDY CURRENT SYSTEM FOR TITANIUM AND INCONEL SAMPLES TESTING. , 2011, , .		3
53	Development of a moving magnetic flux type sensor using shading coils for ECT. IEEE Transactions on Magnetics, 1998, 34, 1309-1311.	2.1	2
54	Visualization of fatigue damage in magnetic materials using a high resolution electromagnetic sensor. IEEE Transactions on Magnetics, 2000, 36, 2788-2790.	2.1	2

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55	Mathematical model of a magnetoresistive transducer for eddy current nondestructive testing of materials. International Journal of Applied Electromagnetics and Mechanics, 2002, 15, 21-25.	0.6	2
56	Eddy current testing of concrete structures. International Journal of Applied Electromagnetics and Mechanics, 2002, 15, 33-37.	0.6	2
57	Flaws Identification Using an Approximation Function and Artificial Neural Networks. , 0, , .		2
58	SELECTED ALGORITHMS OF BACKGROUND GENERATION USED FOR FLAW DETECTION IN WELDED JOINTS. AIP Conference Proceedings, 2008, , .	0.4	2
59	Eddy Current Transducer for Evaluation of Inhomogeneity in Titanium Billets. IEEE Transactions on Magnetics, 2011, 47, 3967-3970.	2.1	2
60	Eddy Current Transducer Dedicated for Sigma Phase Evaluation in Duplex Stainless Steel. Journal of Sensors, 2012, 2012, 1-6.	1.1	2
61	Evaluation of reinforced concrete structures using the electromagnetic method. AIP Conference Proceedings, 2018, , .	0.4	2
62	Numerical analysis of eddy current transducer with rotating permanent magnets for planar conducting plates testing. , 2018, , .		2
63	Evaluation of fiber reinforced polymers using active infrared thermography system with thermoelectric cooling modules. AIP Conference Proceedings, 2018, , .	0.4	2
64	A new probe for eddy current testing of low conductivity materials. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1998, 17, 393-397.	0.9	1
65	Signal restoration using dynamic neural network model for eddy current nondestructive testing. IEEE Transactions on Magnetics, 2001, 37, 3737-3740.	2.1	1
66	Simplified Numerical Analysis of ECT Probe "Eddy Current Benchmark Problem 3. AIP Conference Proceedings, 2005, , .	0.4	1
67	Choice of the Distance between the Pole-Pieces of the Electromagnet Yoke in a Magnetic Method of Material Testing. AIP Conference Proceedings, 2005, , .	0.4	1
68	Magnetic property evaluation using leakage flux spectrogram. International Journal of Applied Electromagnetics and Mechanics, 2007, 25, 503-509.	0.6	1
69	EDDY CURRENT DIFFERENTIAL TRANSDUCER FOR NONDESTRUCTIVE EVALUATION OF ALUMINUM PLATES. AIP Conference Proceedings, 2008, , .	0.4	1
70	MULTIFREQUENCY EDDY CURRENT EVALUATION OF HEAT EXCHANGERS STRUCTURES. , 2009, , .		1
71	AUTOMATIC CLASSIFICATION OF WELDING FLAWS USING ARTIFICIAL INTELLIGENCE ALGORITHMS. , 2009, , .		1
72	COMPARATIVE ANALYSIS OF SELECTED EDDY CURRENT TRANSDUCERS FOR TITANIUM ALLOY EVALUATION. , 2010, , .		1

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73	CRACK MODELLING FOR RADIOGRAPHY. , 2010, , .		1
74	THE CHOICE OF OPTIMAL STRUCTURE OF ARTIFICIAL NEURAL NETWORK CLASSIFIER INTENDED FOR CLASSIFICATION OF WELDING FLAWS. , 2010, , .		1
75	INTELLIGENT SYSTEM FOR RADIOGRAM ANALYSIS. , 2011, , .		1
76	The Sigma Phase Evaluation in Duplex Stainless Steel Using ECT Method. Materials Science Forum, 2012, 721, 65-70.	0.3	1
77	Energy and Entropy Based Signal Processing for Terahertz Inspection of Homogeneous and Composite Materials Adhesive Joints. Materials Science Forum, 2012, 721, 132-137.	0.3	1
78	Printed circuit board transducer powered by impulse eddy current testing system. , 2012, , .		1
79	THz imaging based catalog of composite materials defects. , 2012, , .		1
80	Identification of the position of objects in three dimensions using an extended radiography system. International Journal of Applied Electromagnetics and Mechanics, 2012, 39, 167-173.	0.6	1
81	Eddy current system for inspection of train hollow axles. , 2014, , .		1
82	Weld joints inspection using multisource data and image fusion. AIP Conference Proceedings, 2017, , .	0.4	1
83	Object's optical geometry measurements based on Extended Depth of Field (EDoF) approach. AIP Conference Proceedings, 2017, , .	0.4	1
84	On the Possibility of Use of Fractional Order Derivatives to Eddy Current Non-Destructive Testing. , 2017, , .		1
85	The use of fractional order derivatives for eddy current non-destructive testing. AIP Conference Proceedings, 2018, , .	0.4	1
86	Thickness identification of nonconductive coatings using terahertz time domain spectroscopy system. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 1511-1517.	0.6	1
87	VERIFICATION OF THREE-DIMENSIONAL MAGNETIC FIELD DISTRIBUTION. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 1994, 13, 175-178.	0.9	0
88	High sensitive rotational magnetic flux sensing. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 369-371.	2.3	0
89	A New Eddy-Current Self-Compensating Probe for Testing Conducting Plates. AIP Conference Proceedings, 2006, , .	0.4	0
90	Multi-Resolution Eddy Current Measurements. AIP Conference Proceedings, 2007, , .	0.4	0

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91	Eddy Current Differential Transducer for Deep Flaws Evaluation. AIP Conference Proceedings, 2007, , .	0.4	0
92	Comparison of Selected Multifrequency Eddy Current Systems. AIP Conference Proceedings, 2007, , .	0.4	0
93	EDDY CURRENT BENCHMARK PROBLEM. AIP Conference Proceedings, 2008, , .	0.4	0
94	DEDICATED FILTER FOR DEFECTS CLUSTERING IN RADIOGRAPHIC IMAGE. , 2009, , .		0
95	COMPUTER CONTROLLED EDDY CURRENT TOMOGRAPHY SYSTEM. , 2009, , .		0
96	Electromagnetic Transducer With Rotational Excitation Field for Evaluation of Fatigue and Stress Loaded Steel Samples. IEEE Transactions on Magnetics, 2009, 45, 3897-3900.	2.1	0
97	Detection of casting defects on radiogram pictures supported by approximation algorithms. International Journal of Applied Electromagnetics and Mechanics, 2010, 33, 1615-1621.	0.6	0
98	Identification of Conductivity Distribution Using Eddy Current Tomography System and Artificial Neural Networks. Materials Science Forum, 2010, 670, 336-344.	0.3	0
99	Adaptive Scanning Algorithm Based on Neural Network Prediction of Eddy Current Testing Signals. Materials Science Forum, 0, 670, 158-163.	0.3	0
100	Intelligent System for Radiogram Analysis — Software application. , 2011, , .		0
101	Extended radiography system for identification of defect position in three dimensions. , 2011, , .		0
102	Numerical modelling of terahertz systems for nondestructive evaluation of dielectric materials. , 2011, , .		0
103	CLASSIFICATION PROCEDURE IN LIMITED ANGLE TOMOGRAPHY SYSTEM. , 2011, , .		0
104	EVALUATION OF OUTER FLAWS IN TITANIUM ALLOYS USING EDDY CURRENT MEASURING SYSTEM. , 2011, , .		0
105	FEEDBACK ALGORITHM FOR SIMULATION OF MULTI-SEGMENTED CRACKS. , 2011, , .		0
106	Identification of the spatial distribution of conductivity by eddy current defectoscopy with application of artificial neural networks. , 2012, , .		0
107	A study on the impact of DSS electromagnetic properties changes caused by a sigma phase on an eddy current transducer pick-up signal. International Journal of Applied Electromagnetics and Mechanics, 2014, 45, 527-534.	0.6	0
108	Inspection of coatings using terahertz time domain spectroscopy system. AIP Conference Proceedings, 2017, , .	0.4	0

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109	Automatic non-destructive system for quality assurance of welded elements in the aircraft industry. AIP Conference Proceedings, 2018, , .	0.4	0