Thomas Krause

List of Publications by Year
in descending order

62	819	567281 15	526287 27
papers	citations	h-index	g-index

62	62	62	379
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Investigation of the stress-dependent magnetic easy axis in steel using magnetic Barkhausen noise. Journal of Applied Physics, 1996, 79, 4242.	2.5	88
2	Characterization of the magnetic easy axis in pipeline steel using magnetic Barkhausen noise. Journal of Applied Physics, 1994, 75, 7983-7988.	2.5	85
3	Pulsed Eddy Current Detection of Cracks in Multilayer Aluminum Lap Joints. IEEE Sensors Journal, 2015, 15, 956-962.	4.7	52
4	Simultaneous Multiparameter Measurement in Pulsed Eddy Current Steam Generator Data Using Artificial Neural Networks. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 672-679.	4.7	51
5	Control of flux in magnetic circuits for Barkhausen noise measurements. Measurement Science and Technology, 2007, 18, 3501-3510.	2.6	49
6	Investigation of the magnetic field and stress dependence of 180Â° domain wall motion in pipeline steel using magnetic Barkhausen noise. Journal of Magnetism and Magnetic Materials, 1994, 137, 25-34.	2.3	33
7	Investigation of Optimum Field Amplitude for Stress Dependence of Magnetic Barkhausen Noise. IEEE Transactions on Magnetics, 2007, 43, 3976-3983.	2.1	32
8	Pulsed Eddy Current Inspection of Support Structures in Steam Generators. IEEE Sensors Journal, 2015, 15, 4305-4312.	4.7	25
9	Correlation of magnetic Barkhausen noise with core loss in oriented 3% Siâ€“Fe steel laminates. Journal of Applied Physics, 1996, 79, 3156-3167.	2.5	23
10	Principal Components Analysis of Multifrequency Eddy Current Data Used to Measure Pressure Tube to Calandria Tube Gap. IEEE Sensors Journal, 2016, 16, 3147-3154.	4.7	23
11	Modeling of magnetic Barkhausen noise in single and dual easy axis systems in steel. Journal of Magnetism and Magnetic Materials, 1999, 195, 193-205.	2.3	22
12	A Multichannel Magnetic Flux Controller for Periodic Magnetizing Conditions. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 1896-1907.	4.7	22
13	Real Time Pulsed Eddy Current Detection of Cracks in F/A-18 Inner Wing Spar Using Discriminant Separation of Modified Principal Components Analysis Scores. IEEE Sensors Journal, 2014, 14, 171-177.	4.7	21
14	Low-Frequency Eddy-Current Testing for Detection of Subsurface Cracks in CF-188 Stub Flange. IEEE Sensors Journal, 2018, 18, 1568-1575.	4.7	17
15	Pulsed Eddy-Current Detection of Loose Parts in Steam Generators. IEEE Sensors Journal, 2018, 18, 2506-2512.	4.7	16
16	Modelling and validation of Eddy current response to changes in factors affecting pressure tube to calandria tube gap measurement. NDT and E International, 2015, 73, 15-21.	3.7	15
17	Multi-parameter Evaluation of Magnetic Barkhausen Noise in Carbon Steel. Journal of Nondestructive Evaluation, 2016, 35, 1.	2.4	15
18	Local Magnetic Properties in Non-oriented Electrical Steel and Their Dependence on Magnetic Easy Axis and Misorientation Parameters. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1262-1276.	2.2	14

#	Article	IF	Citations
19	Solution for a transmit-receive eddy current probe above a layered planar conductive structure. NDT and E International, 2018, 96, 1-8.	3.7	14
20	Stress Response of Magnetic Barkhausen Noise in Submarine Hull Steel: A Comparative Study. Journal of Nondestructive Evaluation, 2016, 35, 1.	2.4	13
21	Pulsed Eddy Current Inspection of Wall Loss in Steam Generator Trefoil Broach Supports. IEEE Sensors Journal, 2017, 17, 444-449.	4.7	13
22	Analytical model of the eddy current response of a drive-receive coil system inside two concentric tubes. NDT and E International, 2018, 96, 18-25.	3.7	13
23	Enhancing Probability of Detection and Analysis of Bolt Hole Eddy Current. Journal of Nondestructive Evaluation, 2011, 30, 237-245.	2.4	12
24	Surface Profiling and Core Evaluation of Aluminum Honeycomb Sandwich Aircraft Panels Using Multi-Frequency Eddy Current Testing. Sensors, 2017, 17, 2114.	3.8	11
25	Surface profiling with high density eddy current non-destructive examination data. NDT and E International, 2014, 62, 153-159.	3.7	10
26	Stress-Induced Self-Magnetic Flux Leakage at Stress Concentration Zone. IEEE Transactions on Magnetics, 2021, 57, 1-8.	2.1	10
27	Factors Affecting Spatial Resolution in Pulsed Eddy Current Inspection of Pipe. Journal of Nondestructive Evaluation, 2020, 39, 1.	2.4	9
28	Examination of Dodd and Deeds solutions for a transmit-receive eddy current probe above a layered planar structure. AIP Conference Proceedings, 2017, , .	0.4	8
29	Pulsed eddy current probe optimization for steel pipe wall thickness measurement. AIP Conference Proceedings, 2019, , .	0.4	8
30	PULSED EDDY CURRENT THICKNESS MEASUREMENT OF SELECTIVE PHASE CORROSION ON NICKEL ALUMINUM BRONZE VALVES. AIP Conference Proceedings, 2010, , .	0.4	7
31	Predicting hardness profile of steel specimens subjected to Jominy test using an artificial neural network and electromagnetic nondestructive techniques. Nondestructive Testing and Evaluation, 0, , 1-17.	2.1	6
32	Decoupling the effect of stress and microstructure on MBN response in cast Q1N steel. Materials Science and Technology, 2021, 37, 1225-1235.	1.6	6
33	Pulsed eddy current detection of cracks in F/A-18 inner wing spar at large lift-off using modified principal component analysis. International Journal of Applied Electromagnetics and Mechanics, 2014, 45, 287-292.	0.6	5
34	A pulsed eddy current probe for inspection of support plates from within Alloy-800 steam generator tubes. , 2014, , .		5
35	Analysis of pulsed eddy current data using regression models for steam generator tube support structure inspection. AIP Conference Proceedings, 2016, , .	0.4	5
36	Eddy Current Probability of Detection for Mid-Bore and Corner Cracks in Bolt Holes of Service Material. Research in Nondestructive Evaluation, 2016, 27, 34-47.	1.1	5

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37	Electromagnetic Measurement of Molten Metal Level in Pyrometallurgical Furnaces. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 3118-3125.	4.7	5
38	Magnetic Barkhausen Noise Measurements to Assess Temper Embrittlement in HY-80 Steels. IEEE Transactions on Magnetics, 2020, 56, 1-8.	2.1	5
39	Crack Detection Around Raised Head Rivets in Aluminum Aircraft Structures. Journal of Nondestructive Evaluation, 2021, 40, 1.	2.4	5
40	Quantitative Fractography for Improved Probability of Detection (POD) Analysis of Bolt Hole Eddy Current. Research in Nondestructive Evaluation, 2011, 22, 92-104.	1.1	4
41	Pulsed Eddy Current Response to Liftoff in Different Sizes of Concrete Embedded Rebar. , 2019, , .		4
42	Towards a Physics Based Model of Magnetic Barkhausen Noise in SteelÂ. Advanced Materials Letters, 2020, 11, 1-6.	0.6	4
43	Evaluation of Concentric Tube Model for Pressure Tube to Calandria Tube Gap Measurement. IEEE Sensors Journal, 2019, 19, 6233-6239.	4.7	3
44	Effect of Stress Concentration on Magnetic Flux Leakage Signals from Blind-Hole Defects in Stressed Pipeline Steel. Research in Nondestructive Evaluation, 1996, 8, 83-100.	1.1	3
45	Selecting the correct electromagnetic inspection technologyÂ. Advanced Materials Letters, 2019, 10, 441-448.	0.6	3
46	Simultaneous Extraction of Multiple Parameters From a Transmitâ€“Receive Eddy Current Probe Above a Layered Planar Conductive Structure. Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems, 2020, 3, .	0.9	3
47	Modeling magnetization processes in steel under stress using magnetic objects. Journal of Applied Physics, 2022, 131, .	2.5	3
48	Enhancing pulsed eddy current for inspection of P-3 Orion lap-joint structures. AIP Conference Proceedings, 2016, , .	0.4	2
49	Effects of Heat Treatment on CANDUÂ® Pressure Tube Electrical Resistivity. Journal of Nuclear Materials, 2021, 545, 152597.	2.7	2
50	Inverse algorithm for extraction of multiple parameters using analytical model of eddy current response. Journal of Applied Physics, 2022, 131, .	2.5	2
51	FINITE ELEMENT MODELING OF PULSED EDDY CURRENT SIGNALS FROM ALUMINUM PLATES HAVING DEFECTS. , 2010, , .		1
52	ANALYTICAL AND NUMERICAL MODELING OF PULSED EDDY CURRENT RESPONSE TO THIN CONDUCTING PLATES. , 2010, , .		1
53	Laboratory Tests of an Ultrasonic Inspection Technique to Identify Defective CANDU Fuel Elements. Nuclear Technology, 2011, 176, 452-461.	1.2	1
54	Eddy current proximity measurement of perpendicular tubes from within pressure tubes in CANDUÂ® nuclear reactors. AIP Conference Proceedings, 2018, , .	0.4	1

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55	Effect of metal proximity on remote electromagnetic detection of molten metal level in pyrometallurgical furnaces. AIP Conference Proceedings, 2019, , .	0.4	1
56	Microstructural and magnetic Barkhausen noise characterization of temper embrittled HY-80 steel. AIP Conference Proceedings, 2019, , .	0.4	1
57	Magnetic Flux Density Superposition in Nonlinear Anisotropic Ferromagnetic Material and Resulting Magnetic Barkhausen Noise. IEEE Transactions on Magnetics, 2021, 57, 1-7.	2.1	1
58	Non-Contact Measurement of Residual Magnetization Caused by Plastic Deformation of Steel. Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems, 2020, 3, .	0.9	1
59	MEASUREMENT OF UNCERTAINTY IN EDDY CURRENT BOLT HOLE CRACK MEASUREMENTS FOR USE IN POD. , 2010, , .		0
60	Comparison of analytical eddy current models using principal components analysis. AIP Conference Proceedings, 2017, , .	0.4	0
61	Monitoring of LISS Nozzle Proximity to CANDUÂ® Fuel Channels Using the Eddy Current Gap Probe. IEEE Sensors Journal, 2021, , 1-1.	4.7	0
62	Eddy Current Array Inspection of Damaged CFRP Sandwich Panels. Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems, 2020, 3, .	0.9	0