

Eduard Gorkunov

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	The influence of an elastic uniaxial deformation of a medium-carbon steel on its magnetostriction in the longitudinal and transverse directions. Russian Journal of Nondestructive Testing, 2013, 49, 584-594.	0.3	23
2	Structure, mechanical characteristics, and deformation and fracture features of quenched structural steel under static and cyclic loading after combined strain-heat nanostructuring treatment. Physical Mesomechanics, 2015, 18, 43-57.	1.0	23
3	Correlation between the stress-strain state parameters and magnetic characteristics of carbon steels. Physics of Metals and Metallography, 2007, 103, 311-316.	0.3	20
4	Eddy-current testing of the hardness, wear resistance, and thickness of coatings prepared by gas-powder laser cladding. Russian Journal of Nondestructive Testing, 2009, 45, 797-805.	0.3	18
5	Different remanence states and their resistance to external effects. Discussing the "method of magnetic memory". Russian Journal of Nondestructive Testing, 2014, 50, 617-633.	0.3	18
6	The influence of a preliminary plastic deformation on the behavior of the magnetic characteristics of high-strength controllably rolled pipe steel under an elastic uniaxial tension (Compression). Russian Journal of Nondestructive Testing, 2015, 51, 563-572.	0.3	16
7	Barkhausen noise and its utilization in structural analysis of ferromagnetic materials (Review article) Tj ETQq1 1 0.784314 rgBT /Overl 2000, 36, 389-417.	0.3	15
8	Effect of friction-induced hardening on the features of magnetic and eddy-current behavior of an annealed structural steel under cyclic loading conditions. Russian Journal of Nondestructive Testing, 2008, 44, 496-508.	0.3	14
9	The influence of the magnetoelastic effect on the hysteretic properties of medium-carbon steel during uniaxial loading. Russian Journal of Nondestructive Testing, 2010, 46, 638-644.	0.3	14
10	Features of electromagnetic methods for testing the wear resistance of medium-carbon structural steel subjected to laser or bulk hardening and tempering. Russian Journal of Nondestructive Testing, 2006, 42, 443-451.	0.3	13
11	The role of cementite in the formation of magnetic hysteresis properties of plastically deformed high-carbon steels: II. Magnetic properties of patented wire made of steel 70. Russian Journal of Nondestructive Testing, 2006, 42, 460-467.	0.3	12
12	Application of an Eddy-current method for the assessment of stored plastic deformation and residual mechanical properties after cyclic loading of an annealed medium-carbon steel. Russian Journal of Nondestructive Testing, 2007, 43, 228-233.	0.3	12
13	Magnetic estimation of stresses applied to a two-layer steel CT3-steel 08X18H10T composite material during elastoplastic deformation by uniaxial tension. Russian Journal of Nondestructive Testing, 2012, 48, 495-504.	0.3	12
14	Effect of mechanical stresses on the magnetic characteristics of pipe steel. Journal of Applied Mechanics and Technical Physics, 2014, 55, 530-538.	0.1	12
15	Title is missing!. Russian Journal of Nondestructive Testing, 2001, 37, 835-858.	0.3	11
16	Relation of Physical-Mechanical Properties to the Structural Condition of Severely Deformed Patented Carbon Steels at Drawing. Russian Journal of Nondestructive Testing, 2005, 41, 65-79.	0.3	11
17	The effects of deformations by rolling and uniaxial tension on the structure and the magnetic and mechanical properties of armco iron, steel 12X18H10T, and a steel 12X18H10T-Armco Iron-Steel 12X18H10T composite material. Russian Journal of Nondestructive Testing, 2011, 47, 369-380.	0.3	11
18	The application of magnetic structural phase analysis for the diagnostics of the State of a 08X18H10T Steel-Ct3 Steel composite material and its components that were subjected to plastic deformation. Russian Journal of Nondestructive Testing, 2012, 48, 346-356.	0.3	11

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19	Application of the eddy-current method for estimating the wear resistance of hydrogen-alloyed β -titanium alloy BT35. Russian Journal of Nondestructive Testing, 2007, 43, 21-26.	0.3	10
20	Effect of the structure and stress state on the magnetic properties of metal in different zones of welded pipes of large diameter. Physics of Metals and Metallography, 2014, 115, 949-956.	0.3	10
21	On Possibility of Nondestructive Testing of the Grain Size in the Intermediate Stages of Manufacturing Electrical Steel. Russian Journal of Nondestructive Testing, 2003, 39, 615-628.	0.3	9
22	Behavior of magnetic characteristics in promising nitrogen-containing steels upon elastoplastic deformation. Physics of Metals and Metallography, 2015, 116, 838-849.	0.3	9
23	Eddy-current testing of fatigue degradation under contact loading of NiCrBSi coatings obtained through gasâ€“powder laser cladding. Russian Journal of Nondestructive Testing, 2015, 51, 692-704.	0.3	9
24	Different remanence states and their resistance to external effects. Discussing the so-called magnetic memory method. Insight: Non-Destructive Testing and Condition Monitoring, 2015, 57, 709-717.	0.3	9
25	Evolution of magnetic properties of Fe-Mn and Fe-Mn-Cr steels with different stability of austenite during plastic deformation. Physics of Metals and Metallography, 2008, 105, 343-350.	0.3	8
26	Coercive force of ferromagnetic steels under the biaxial symmetrical tension of a material. Russian Journal of Nondestructive Testing, 2011, 47, 359-368.	0.3	8
27	On the efficiency of application of magnetic and electrical parameters for nondestructive testing of crystal-lattice microdistortions in heat-treated carbon steels. Russian Journal of Nondestructive Testing, 2012, 48, 166-175.	0.3	8
28	Regularities of the change in the coercive force under biaxial asymmetric deformation of steel 3. Russian Journal of Nondestructive Testing, 2010, 46, 194-205.	0.3	7
29	The influence of elastic deformations on the hysteresis properties of a two-layer ferromagnet composed of components with magnetostrictions of opposite signs. Russian Journal of Nondestructive Testing, 2014, 50, 469-480.	0.3	7
30	Eddy-Current Evaluation of Wear Resistance of Case-Hardened Chromiumâ€“Nickel 20KhN3A Steel. Russian Journal of Nondestructive Testing, 2001, 37, 136-144.	0.3	6
31	Coercive Force of a Package of Steel Sheets with Different Degrees of Magnetic Hardness. Russian Journal of Nondestructive Testing, 2002, 38, 331-338.	0.3	6
32	Effect of Deviation from Coaxiality between the Directions of Magnetization and Mechanical Strain on the Results of Magnetic Testing of Elastic Strain in Steels. Russian Journal of Nondestructive Testing, 2004, 40, 317-325.	0.3	6
33	Eddy-current and coercive-force testing of abrasion-resistant ball bearing steel IIIX15 subjected to laser and bulk thermal processing. Russian Journal of Nondestructive Testing, 2006, 42, 639-647.	0.3	6
34	Study of arrangement efficiency of hall sensors of an attachable magnetic instrument used for recording the coercive force of a local area of an article. Russian Journal of Nondestructive Testing, 2008, 44, 375-379.	0.3	6
35	Effect of Plastic deformation and its localization zones on magnetic characteristics of steel 45. Russian Journal of Nondestructive Testing, 2009, 45, 521-525.	0.3	6
36	Effect of elastic deformation by compression, tension, and torsion on the critical magnetic field distribution in a steel 15XH4D”. Russian Journal of Nondestructive Testing, 2010, 46, 75-83.	0.3	6

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37	A speckle-interferometric setup for contactless measurements of the velocity of rayleigh ultrasonic waves. <i>Instruments and Experimental Techniques</i> , 2010, 53, 118-121.	0.1	6
38	The peculiarities of magnetic and eddy-current testing of quenched structural steel hardened by nanostructuring frictional treatment. <i>Russian Journal of Nondestructive Testing</i> , 2012, 48, 615-622.	0.3	6
39	Effect of elastic deformations on magnetic characteristics of chromium-nickel steels. <i>Physics of Metals and Metallography</i> , 2015, 116, 147-155.	0.3	6
40	Magnetoelastic Acoustic Emission in Ferromagnetic Materials. I. Effect of Crystal Anisotropy. <i>Russian Journal of Nondestructive Testing</i> , 2001, 37, 163-180.	0.3	5
41	Application of magnetic and electromagnetic-acoustic methods for assessing plastic deformations under cyclic loading of annealed intermediate-carbon steel. <i>Russian Journal of Nondestructive Testing</i> , 2006, 42, 309-314.	0.3	5
42	The role of cementite in the formation of magnetic hysteresis properties of plastically deformed high-carbon steels: III. Magnetic properties of patented wire made of steel 25. <i>Russian Journal of Nondestructive Testing</i> , 2008, 44, 309-317.	0.3	5
43	Estimation of the quality of strengthening frictional treatment and subsequent tempering of eutectoid steel by the eddy-current method. <i>Russian Journal of Nondestructive Testing</i> , 2009, 45, 133-142.	0.3	5
44	Effect of elasto-plastic loading on the magnetic characteristics of steel 20 hardened with gas case-hardening. <i>Russian Journal of Nondestructive Testing</i> , 2011, 47, 221-231.	0.3	5
45	Magnetic methods for estimation of load and damage levels in X70 steel. <i>Physical Mesomechanics</i> , 2011, 14, 85-93.	1.0	5
46	The influence of a combined strain-heat treatment on the features of electromagnetic testing of fatigue degradation of quenched constructional steel. <i>Russian Journal of Nondestructive Testing</i> , 2013, 49, 690-704.	0.3	5
47	Title is missing!. <i>Russian Journal of Nondestructive Testing</i> , 2001, 37, 186-191.	0.3	4
48	Effect of Elastic and Plastic Deformations on the Coercive Force of Porous Ferromagnetic Materials. <i>Russian Journal of Nondestructive Testing</i> , 2005, 41, 627-631.	0.3	4
49	Effect of aging and plastic deformation on the mechanical, magnetic, and thermal properties of cobalt-containing invars. <i>Russian Journal of Nondestructive Testing</i> , 2005, 41, 802-808.	0.3	4
50	Physicomechanical properties and structure of the powder materials of the Fe-Si system. <i>Physics of Metals and Metallography</i> , 2006, 101, 247-254.	0.3	4
51	Influence of uniaxial tension on magnetic characteristics of the 12 [#] pipe steel exposed to hydrogen sulfide. <i>Russian Journal of Nondestructive Testing</i> , 2008, 44, 566-573.	0.3	4
52	A speckle-interferometric setup for determining the velocity of ultrasonic rayleigh waves on millimeter-size segments. <i>Russian Journal of Nondestructive Testing</i> , 2011, 47, 153-157.	0.3	4
53	Magnetic and eddy-current testing of hardened constructional steel subjected to combined strain-thermal treatment. <i>Russian Journal of Nondestructive Testing</i> , 2012, 48, 673-685.	0.3	4
54	Coercive-force hysteresis of carbon steels during elastic cyclic tensile deformation. <i>Russian Journal of Nondestructive Testing</i> , 2013, 49, 260-269.	0.3	4

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55	Title is missing!. Russian Journal of Nondestructive Testing, 2002, 38, 376-397.	0.3	3
56	Internal Demagnetization Factor for Porous Ferromagnets in Remagnetization Process. Russian Journal of Nondestructive Testing, 2004, 40, 1-7.	0.3	3
57	An Effect of Nonferromagnetic Gaps on the Magnetic Properties of Stacks of Steel Plates with Different Values of Magnetic Hardness: II. An Attachable Electromagnet. Russian Journal of Nondestructive Testing, 2005, 41, 182-188.	0.3	3
58	Variation of magnetic properties of two-layer carbon-steel products under tension. Physics of Metals and Metallography, 2007, 103, 624-632.	0.3	3
59	Effect of elastoplastic deformation on magnetic characteristics of a powder structural steel having different residual porosities. Russian Journal of Nondestructive Testing, 2007, 43, 817-826.	0.3	3
60	Effect of laser surface hardening on magnetic characteristics of a carbon steel under loading. Russian Journal of Nondestructive Testing, 2008, 44, 560-565.	0.3	3
61	Magnetic investigation of strains and stresses in surface-hardened materials. Physical Mesomechanics, 2009, 12, 190-198.	1.0	3
62	Magnetic inspection of fatigue degradation of a high-carbon pearlitic steel. Russian Journal of Nondestructive Testing, 2011, 47, 803-809.	0.3	3
63	Magnetic and electron microscopy analysis of wear products of sliding tribo-conjugations. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2000, 214, 507-512.	1.0	2
64	Title is missing!. Russian Journal of Nondestructive Testing, 2001, 37, 601-608.	0.3	2
65	Barkhausen effect in alloys with amorphous and nanocrystalline structures. Doklady Physics, 2002, 47, 728-730.	0.2	2
66	Title is missing!. Russian Journal of Nondestructive Testing, 2002, 38, 528-536.	0.3	2
67	An Effect of Nonferromagnetic Gaps on the Magnetic Properties of Stacks of Steel Plates with Different Values of Magnetic Hardness: I. A Closed Circuit. Russian Journal of Nondestructive Testing, 2005, 41, 175-181.	0.3	2
68	Evaluating the Wear in Steel-Steel and Iron-Iron Friction Pairs by the Eddy-Current Method. Russian Journal of Nondestructive Testing, 2005, 41, 218-223.	0.3	2
69	Coercive-force and eddy-current testing of the abrasive wear resistance of quenched and tempered hypereutectoid carbon steels: I. Steels subjected to standard low-temperature quenching and tempering. Russian Journal of Nondestructive Testing, 2007, 43, 281-287.	0.3	2
70	Coercive-force and eddy-current testing of the abrasive wear resistance of quenched and tempered hypereutectoid carbon steels: II. Steels subjected to different quenching regimes, subzero treatment, and tempering after high-temperature quenching. Russian Journal of Nondestructive Testing, 2007, 43, 288-301.	0.3	2
71	Peculiarities of deformation behavior of magnetic parameters of a maraging steel characterized by different degrees of precipitation hardening. Russian Journal of Nondestructive Testing, 2007, 43, 567-575.	0.3	2
72	Magnetic properties of cementite and the coercive force of a Fe-5 at % C alloy after hardening and tempering. Russian Journal of Nondestructive Testing, 2009, 45, 330-336.	0.3	2

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73	Eddy-current testing of the wear resistance of laser-hardened carburized chromonickel steel and the quality of laser hardening of drill bits. Russian Journal of Nondestructive Testing, 2009, 45, 698-710.	0.3	2
74	The effect of tempering temperature on the coercive force of high-carbon steels measured at room temperature and a temperature above the curie point of cementite. Russian Journal of Nondestructive Testing, 2010, 46, 627-631.	0.3	2
75	The effect of equal channel angular pressing on the mechanical and magnetic properties of 09Г2С steel. Russian Journal of Nondestructive Testing, 2012, 48, 568-575.	0.3	2
76	Effect of heat treatment and elastoplastic deformation on magnetic properties of 50Ni2Mo powder steel. Physical Mesomechanics, 2012, 15, 122-132.	1.0	2
77	Modeling of magnetic states in ferromagnetic rods of various structures magnetized in a pass-through transducer. Russian Journal of Nondestructive Testing, 2000, 36, 200-209.	0.3	1
78	Effect of anneal on magnetic properties and structural state of iron powders ground in carbon-rich medium. Russian Journal of Nondestructive Testing, 2000, 36, 621-630.	0.3	1
79	Title is missing!. Russian Journal of Nondestructive Testing, 2001, 37, 1-9.	0.3	1
80	Title is missing!. Russian Journal of Nondestructive Testing, 2001, 37, 24-28.	0.3	1
81	Title is missing!. Russian Journal of Nondestructive Testing, 2002, 38, 767-787.	0.3	1
82	Possibility of Nondestructive Testing of Operational Heating of Contact Surfaces of Rolling Bearings. Russian Journal of Nondestructive Testing, 2003, 39, 465-471.	0.3	1
83	Utilization of electromagnetic acoustic conversion to estimate microstress in steels. Russian Journal of Nondestructive Testing, 2004, 40, 449-454.	0.3	1
84	Demagnetizing Factors of Ferromagnetic Bars upon Magnet Saturation. Russian Journal of Nondestructive Testing, 2005, 41, 80-85.	0.3	1
85	Investigation of the Effects of Crystallographic Anisotropy and the Domain Structure of Ferromagnets on the Parameters of Double Electromagnetic-Acoustic Transformation. Russian Journal of Nondestructive Testing, 2005, 41, 207-217.	0.3	1
86	Microdistortions in the crystal lattice of steel IIIХ15 as estimated via the optoacoustic method and velocimetry. Russian Journal of Nondestructive Testing, 2006, 42, 582-585.	0.3	1
87	Estimating the deformation state of single-and two-layer ferromagnetic materials on the basis of their magnetic characteristics. Russian Journal of Nondestructive Testing, 2007, 43, 709-717.	0.3	1
88	Magnetic and electromagnetic inspection of mechanical properties of high-carbon steel with an initial fine-pearlite structure subjected to high-temperature annealing. Russian Journal of Nondestructive Testing, 2008, 44, 117-131.	0.3	1
89	Structure and electromagnetic properties of ZhGr-type powder steel deformed by rolling with different porosity and temper. Russian Journal of Nondestructive Testing, 2009, 45, 509-519.	0.3	1
90	Influence of structural features of welded joints of low-alloy steels on magnetic and micromagnetic properties. Russian Journal of Nondestructive Testing, 2009, 45, 874-883.	0.3	1

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91	Effect of heat treatment on the magnetic behaviour of powder steel 50Ni2Mo under uni-axial tension. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2012, 226, 1462-1471.	1.1	1
92	Effect of static and cyclic deformation on microplastic strain and magnetic properties of steel 45. Metal Science and Heat Treatment, 2000, 42, 150-150.	0.2	0
93	Features of magnetization curves of assemblies including steel rods with different magnetic properties. Russian Journal of Nondestructive Testing, 2000, 36, 353-359.	0.3	0
94	Effect of the porosity of layers on the magnetic properties of multilayer ferromagnetic articles. Russian Journal of Nondestructive Testing, 2006, 42, 291-295.	0.3	0
95	A permanent-magnet-based attached instrument used to inspect articles on the basis of their coercive force. Russian Journal of Nondestructive Testing, 2007, 43, 119-122.	0.3	0
96	Specific features of magnetic testing of the mechanical properties of high-carbon steel with the structure of lamellar pearlite. Russian Journal of Nondestructive Testing, 2007, 43, 436-445.	0.3	0
97	Determining the stress state of a stretched rod from its measured magnetic characteristics. Journal of Applied Mechanics and Technical Physics, 2008, 49, 877-882.	0.1	0
98	Analysing the applicability of eddy current non-destructive technique for testing the wear of "steel" steel™ and "cast iron" cast iron™ tribological situations. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2008, 222, 675-681.	1.0	0
99	Choice of place of magnetic-flux registration in the magnetic core of an attachable electromagnet for inspection of articles using their coercive force. Russian Journal of Nondestructive Testing, 2009, 45, 693-697.	0.3	0
100	The effect of sizes of particles of furnace charge on magnetic characteristics of a sintered iron powder. Russian Journal of Nondestructive Testing, 2009, 45, 867-873.	0.3	0
101	Behavior of magnetic characteristics of structural powder D-D^{N} steels during rolling and subsequent tension. Russian Journal of Nondestructive Testing, 2010, 46, 206-215.	0.3	0
102	Determination of the magnetic properties of separate zones of welds and the width of welded joints based on magnetic measurements. Russian Journal of Nondestructive Testing, 2011, 47, 577-586.	0.3	0
103	A Correlation between the Magnetic Behaviour and Damage of Metal Materials under Plastic Deformations. Key Engineering Materials, 0, 528, 71-78.	0.4	0
104	Evolution of structure and physical-mechanical properties of iron under deformation. European Physical Journal Special Topics, 1999, 09, Pr9-13-Pr9-19.	0.2	0