Roman Davydov

List of Publications by Year
in descending order

73 papers	**875** citations	471509 **17** h-index	526287 **27** g-index
76 all docs	**76** docs citations	**76** times ranked	**155** citing authors

#	Article	IF	Citations
1	The application of pesticides and mineral fertilizers in agriculture. MATEC Web of Conferences, 2018, 245, 11003.	0.2	64
2	New high-speed system for controlling the parameters of a nuclear reactor in a nuclear power plant. E3S Web of Conferences, 2019, 140, 02001.	0.5	64
3	Economic management instrument for enhanced supply of utilities to megacities. IOP Conference Series: Materials Science and Engineering, 2019, 497, 012061.	0.6	56
4	Application of new architectural and planning solutions to create an ecological city (on the example) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.5	47
5	Features of the induced photopleochroism oscillations in a photosensitive structures based on CuInSe2. Journal of Physics: Conference Series, 2017, 917, 052011.	0.4	45
6	Mathematical Simulation of Flood Management by Hydro Systems with Temporarily Flooded Reservoirs. Advances in Intelligent Systems and Computing, 2018, , 915-920.	0.6	40
7	Parameter Control System for a Nuclear Power Plant Based on Fiber-Optic Sensors and Communication Lines. , 2019, , .		40
8	Equation of state for computer simulation of metal ablation by femtosecond laser pulses. Journal of Physics: Conference Series, 2017, 929, 012040.	0.4	33
9	The simulation model for a flood management by flood control facilities. MATEC Web of Conferences, 2018, 245, 15002.	0.2	31
10	A new method for monitoring the health condition based on nondestructive signals of laser radiation absorption and scattering. Journal of Physics: Conference Series, 2019, 1410, 012067.	0.4	31
11	Simulation of femtosecond pulsed laser ablation of metals. Journal of Physics: Conference Series, 2016, 769, 012060.	0.4	27
12	On the need to calculate the stability of the quantum frequency standard on the rubidium gas cell for navigation systems. Journal of Physics: Conference Series, 2019, 1326, 012043.	0.4	27
13	A New Scheme for Transmitting Heterodyne Signals Based on a Fiber-Optical Transmission System for Receiving Antenna Devices of Radar Stations and Communication Systems. Lecture Notes in Computer Science, 2019, , 710-718.	1.3	26
14	A new algorithm for processing the absorption and scattering signals of laser radiation on a blood vessel and human tissues. Journal of Physics: Conference Series, 2019, 1236, 012079.	0.4	23
15	Using of the rubidium â€" 87 quantum frequency standard in navigational systems. Journal of Physics: Conference Series, 2019, 1326, 012040.	0.4	23
16	Equation of state for simulation of nanosecond laser ablation aluminium in water and air. Journal of Physics: Conference Series, 2015, 643, 012107.	0.4	21
17	Fiber-Optic Transmission System for the Testing of Active Phased Antenna Arrays in an Anechoic Chamber. Lecture Notes in Computer Science, 2017, , 177-183.	1.3	17
18	Features of the signal registration and processing in the study of liquid flow medium by the refraction method. Journal of Physics: Conference Series, 2019, 1326, 012012.	0.4	17

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19	Improving characteristics of microwave frequency standard on Hg-199 ions for telecommunication systems. Journal of Physics: Conference Series, 2019, 1326, 012046.	0.4	17
20	Features of the construction of the registration scheme of optical images in an autonomous quantum magnetic field sensor. Journal of Physics: Conference Series, 2019, 1368, 022056.	0.4	17
21	Features of Transmission of Intermediate Frequency Signals over Fiber-Optical Communication System in Radar Station. Lecture Notes in Computer Science, 2018, , 624-630.	1.3	16
22	Optical method for studying the magnetic field structure. Journal of Physics: Conference Series, 2019, 1326, 012024.	0.4	15
23	Fiber â€" Optical System for Governance and Control of Work for Nuclear Power Stations of Low Power. Lecture Notes in Computer Science, 2019, , 744-756.	1.3	14
24	New Method for Determining the Probability of Signals Overlapping for the Estimation of the Stability of the Radio Monitoring Systems in a Complex Signal Environment. Lecture Notes in Computer Science, 2019, , 525-533.	1.3	13
25	Computer Simulation of Metal Ablation by Single and Multiple Ultrashort Laser Pulses. , 2018, , .		12
26	New architectural and planning solutions as a mean of ecological modernization and reconstruction of urban environment (on the example of Shanghai city, China). IOP Conference Series: Earth and Environmental Science, 2019, 390, 012011.	0.3	11
27	The development of small and medium-sized businesses, as the basis for a balanced development of agriculture in Russia. IOP Conference Series: Earth and Environmental Science, 2019, 390, 012016.	0.3	11
28	Monitoring of Flowing Media State by Refraction Phenomenon. , 2018, , .		10
29	A new method of processing a pulse wave in rapid diagnosis of the human health. Journal of Physics: Conference Series, 2019, 1400, 066037.	0.4	10
30	On the Possibility of Studying Ferrofluids by a Nuclear Magnetic Magnetometer with a Flowing Sample. Journal of Communications Technology and Electronics, 2020, 65, 558-564.	0.5	7
31	Computer implementation of the mathematical model for water flow management by a hydro complex. Journal of Physics: Conference Series, 2018, 1135, 012088.	0.4	6
32	Modeling parameters of the flood control facilities adapted to climate change. Journal of Physics: Conference Series, 2019, 1236, 012049.	0.4	6
33	Simulation of water flow management by the flood control facilities in the adjacent river basins. Journal of Physics: Conference Series, 2019, 1400, 077049.	0.4	6
34	On the possibility of analysis using the wavelet transform of the pulse waveform from the bloodstream. Journal of Physics: Conference Series, 2020, 1695, 012064.	0.4	6
35	Computer modelling of pulsed laser femtosecond ablation for metals. Journal of Physics: Conference Series, 2018, 1135, 012087.	0.4	5
36	Development of a method for testing the wear resistance of friction pairs based on the synthesis of the method of M. V. Lomonosov with the improved method of artificial bases. Journal of Physics: Conference Series, 2021, 1942, 012058.	0.4	5

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37	The Algorithm for Processing Signals of a Pulse-Phase Radio Navigation System in a Quasi-Differential Mode Using Signals from Global Navigation Satellite Systems. , 2020, , .		5
38	Computer simulation of femtosecond pulsed laser ablation of aluminium and copper. Journal of Physics: Conference Series, 2018, 1124, 081037.	0.4	4
39	Application of the Kohonen neural network for monitoring tissue oxygen supply under hypoxic conditions. Journal of Physics: Conference Series, 2021, 2086, 012116.	0.4	4
40	The Nuclear Magnetic Flowmeter for Monitoring the Consumption and Composition of Oil and Its Complex Mixtures in Real-Time. Energies, 2022, 15, 3259.	3.1	4
41	Mathematical models of operating regimes of flood control facility's system. Journal of Physics: Conference Series, 2019, 1368, 042076.	0.4	3
42	Socio-ecological consequences during the construction of a multistage system of flood control facilities on side tributaries. Journal of Physics: Conference Series, 2021, 1942, 012059.	0.4	3
43	Optical Method for Controlling the Flow Rate of the Coolant in Nuclear Reactors. , 2021, , .		3
44	Flowing Refractometer for Feed Water State Control in the Second Loop of Nuclear Reactor. Energies, 2022, 15, 457.	3.1	3
45	Selection Basis of an Antenna for a Radio Receiver of a Small-sized Module of a Pulse-phase Radio Navigation System of a Moving Object. , 2020, , .		3
46	The research of radioactive exposure compensation on optical material for optical fibers by powerful laser radiation. , 2020, , .		3
47	Polarization photosensitivity of n-p-CdSiAs$_2$ photodiode. Journal of Physics: Conference Series, 2018, 1124, 081039.	0.4	2
48	Production and application of selenium nanoparticles to prevent ionizing radiation-induced oxidative stress. IOP Conference Series: Earth and Environmental Science, 2019, 390, 012031.	0.3	2
49	Peculiarities of Monitoring the State of a Flowing Medium by the Method of Nuclear Magnetic Resonance. Technical Physics Letters, 2020, 46, 55-58.	0.7	2
50	Testing the methodology for evaluating the accuracy of the 3d printing. Journal of Physics: Conference Series, 2021, 1942, 012057.	0.4	2
51	Determination of the Longitudinal Relaxation Time of a Flowing Liquid Using a Differential Nuclear Magnetic Spectrometer. Technical Physics Letters, 2020, 46, 1147-1151.	0.7	2
52	Study of the Possibility of Reducing the Attenuation Coefficient of Two-Wire Circuits. , 2020, , .		2
53	Simulation of laser ablation of metals for nanoparticles production. International Journal of Modern Physics Conference Series, 2016, 41, 1660143.	0.7	1
54	Mathematical Modelling of the Synthesis of New Materials. ITM Web of Conferences, 2017, 13, 01034.	0.5	1

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55	Research and modeling of laser ablation by ultra-short laser pulses for metal targets. Journal of Physics: Conference Series, 2019, 1368, 022007.	0.4	1
56	Structure of a Nuclear Magnetic Resonance Signal in a Small Relaxometer. Journal of Communications Technology and Electronics, 2021, 66, 632-636.	0.5	1
57	New Design of a Magnetometer Based on Nuclear Magnetic Resonance to Study Variations of the Mid-field Magnetic Strength. Applied Magnetic Resonance, 2021, 52, 1201.	1.2	1
58	Features of Studying Liquid Media by the Method of Nuclear Magnetic Resonance in a Weak Magnetic Field. Journal of Communications Technology and Electronics, 2021, 66, 1189-1195.	0.5	1
59	Modeling with Artificial Neural Networks the Influence of Meteorological Parameters on the Solar Power Plant's Energy Production. , 2021, , .		1
60	Modelling Energy Production and Consumption in Relation to Climate Parameters. , 2021, , .		1
61	Nuclear-magnetic flowmeter-relaxometer for control to expenditure and condition transparent liquids of coolant in first circuit of nuclear reactor a moving object. Izmeriteľnaya Tekhnika, 2022, , 49-58.	0.2	1
62	Generation of hydrogen peroxide in protein solutions under the influence of thermal and optical electromagnetic radiation. IOP Conference Series: Earth and Environmental Science, 2019, 390, 012023.	0.3	0
63	The impact of agricultural resource-saving technologies on grain yeld and quality. IOP Conference Series: Earth and Environmental Science, 2019, 390, 012040.	0.3	0
64	Fiber optic information transmission system for interference compensation circuitry in small-sized active phased array antenna. , 2020, , .		0
65	Wood-plastic composites development from waste products for the agricultural and industrial needs. IOP Conference Series: Earth and Environmental Science, 2020, 578, 012024.	0.3	0
66	The study of the ashes obtained by burning the dry sludge of urban sewage treatment systems. IOP Conference Series: Earth and Environmental Science, 2020, 578, 012048.	0.3	0
67	Modelling a system of intercepting reservoirs distributed on the side tributaries of a river to prevent flooding of agricultural land. IOP Conference Series: Earth and Environmental Science, 2020, 578, 012055.	0.3	0
68	Mathematical modelling of the operation of a multistage flood control system using parallel computations. , 2020, , .		0
69	Prospects for Distributed Ledger Technology Use in Public Procurement System of the Russian Federation. , 2020, , .		0
70	Digital Technologies in Polymerase Chain Reaction for Analysis of Clindomycin - associated Dysbiosis. , 2020, , .		0
71	Method of coolant expenditure measuring in work control system of nuclear reactor. Izmeriteľnaya Tekhnika, 2021, , 30-37.	0.2	0
72	The Multifunctional Nuclear Magnetic Flowmeter for Control to the Consumption and Condition of Coolant in Nuclear Reactors. Energies, 2022, 15, 1748.	3.1	0

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73	Multiphase nuclear-magnetic flowmeter-relaxometer for control of condition and rapidly changing expenditures of oil mixtures. Izmeriteľnaya Tekhnika, 2022, , 52-59.	0.2	0