

# Eduard Son

## List of Publications by Year in descending order

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114  
papers

716  
citations

687335

13  
h-index

794568

19  
g-index

116  
all docs

116  
docs citations

116  
times ranked

384  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical breakdown voltage of transformer oil with gas bubbles. High Temperature, 2014, 52, 770-773.	1.0	29
2	Foamed emulsion "Fuel on the base of water-saturated oils. Fuel, 2017, 203, 261-268.	6.4	27
3	Development of nanosecond discharges in atmospheric pressure air: two competing mechanisms of precursor electrons production. Journal Physics D: Applied Physics, 2018, 51, 434002.	2.8	26
4	Experimental study of foamed emulsion combustion: Influence of solid microparticles, glycerol and surfactant. Fuel Processing Technology, 2017, 166, 77-85.	7.2	25
5	Plasma aerodynamics in a supersonic gas flow. High Temperature, 2010, 48, 903-909.	1.0	24
6	Current investigations of thermophysical properties of substances (based on recent publications in) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	23
7	Pulsed electrical discharge in conductive solution. Journal Physics D: Applied Physics, 2016, 49, 385202.	2.8	23
8	Combustion of emulsion-based foam. Combustion and Flame, 2016, 172, 162-172.	5.2	21
9	Pre-breakdown phenomena and discharges in a gas-liquid system. Plasma Sources Science and Technology, 2018, 27, 045005.	3.1	20
10	Vapor-air discharges between electrolytic cathode and metal anode at atmospheric pressure. High Temperature, 2005, 43, 1-7.	1.0	19
11	Production of active species in an argon microwave plasma torch. Journal Physics D: Applied Physics, 2018, 51, 464004.	2.8	16
12	Electrical breakdown of soil under nonlinear pulsed current spreading. Journal Physics D: Applied Physics, 2015, 48, 285201.	2.8	15
13	Kinetic and electrical phenomena in gas-liquid systems. High Temperature, 2016, 54, 745-766.	1.0	14
14	Multichannel discharge between jet electrolyte cathode and jet electrolyte anode. High Temperature, 2011, 49, 325-329.	1.0	13
15	Separation flow control by thermal bump in a supersonic airflow. Europhysics Letters, 2012, 99, 15002.	2.0	13
16	Slow "thermal" and fast "streamer-leader" breakdown modes in conductive water. Journal Physics D: Applied Physics, 2018, 51, 354003.	2.8	13
17	Vapor-air discharges between Jet electrolytic cathode and metal anode at low pressure. High Temperature, 2010, 48, 447-450.	1.0	12
18	Model of glow discharge between an electrolytic anode and a metal cathode. High Temperature, 2015, 53, 188-192.	1.0	12

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19	Radio-frequency capacitive discharge with flowing liquid electrodes at reduced gas pressures. Plasma Physics Reports, 2017, 43, 741-748.	0.9	12
20	Pulsed electrical breakdown of conductive water with air bubbles. Plasma Sources Science and Technology, 2019, 28, 085019.	3.1	12
21	Electric breakdown along a jet electrolytic cathode at low pressures. High Temperature, 2010, 48, 747-749.	1.0	11
22	Spectral diagnostics of plasma discharge between a metal cathode and liquid anode. High Temperature, 2017, 55, 457-460.	1.0	11
23	Vapor-air discharges between electrolytic cathode and metal anode at atmospheric pressure. High Temperature, 2005, 43, 1-7.	1.0	10
24	Peculiarities of microwave discharge between a copper pin electrode and technical water. High Temperature, 2014, 52, 939-941.	1.0	10
25	Electrical discharges with liquid electrodes used in water decontamination. High Temperature, 2014, 52, 490-496.	1.0	10
26	Effect of Gravity on Premixed Methane-Air Flames. High Temperature, 2018, 56, 84-91.	1.0	10
27	2D3V kinetic simulation of Hall effect thruster, including azimuthal waves and diamagnetic effect. Journal Physics D: Applied Physics, 2019, 52, 444002.	2.8	10
28	Numerical simulation of the dynamics of noncongruent melting of binary materials. High Temperature, 2011, 49, 841-848.	1.0	9
29	Supersonic plasmatron nozzle profiling with the real properties of high temperature working gas. High Temperature, 2016, 54, 38-45.	1.0	9
30	Methods for Regulation of Flame Speed in the Foamed Emulsion. Combustion Science and Technology, 2017, 189, 2095-2114.	2.3	9
31	Nonlinear impulse current spreading and electrical breakdown in soil. High Temperature, 2014, 52, 797-802.	1.0	8
32	Shock wave-boundary layer interaction on the non-adiabatic ramp surface. High Temperature, 2014, 52, 220-224.	1.0	7
33	Combustion of Foamed Emulsions in the Quenching/Reignition Regime. Energy & Fuels, 2017, 31, 7572-7581.	5.1	7
34	Premixed Flames Under Microgravity and Normal Gravity Conditions. Microgravity Science and Technology, 2018, 30, 377-382.	1.4	7
35	Overvoltage effect on electrical discharge type in medium-conductivity water in inhomogeneous pulsed electric field. Journal of Physics: Conference Series, 2018, 946, 012160.	0.4	7
36	Bubble Method of Water Purification. High Temperature, 2019, 57, 286-288.	1.0	7

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37	Steady-State Flow of Two Viscous Immiscible Incompressible Fluids in a Plane Channel. High Temperature, 2005, 43, 769-774.	1.0	6
38	Special features of a multichannel discharge in a porous solid cathode. High Temperature, 2009, 47, 603-605.	1.0	6
39	Turbulent mixing of plasma and electrolyte in the multi-channel discharge between a droplet and electrolyte. Physica Scripta, 2010, T142, 014038.	2.5	6
40	Fluid flow with abrupt viscosity-temperature dependence. High Temperature, 2014, 52, 723-729.	1.0	6
41	Premixed conical flame stabilization. Journal of Physics: Conference Series, 2016, 774, 012087.	0.4	6
42	Spark channel propagation in a microbubble liquid. Plasma Physics Reports, 2016, 42, 1074-1077.	0.9	6
43	Stability of thermoviscous fluid flow under high temperature gradients. High Temperature, 2017, 55, 131-138.	1.0	6
44	Combustion of hydrogen-oxygen microfoam on the water base. International Journal of Hydrogen Energy, 2017, 42, 16866-16876.	7.1	6
45	Diffusion and mobility of atomic particles in a liquid. Journal of Experimental and Theoretical Physics, 2017, 125, 906-912.	0.9	6
46	Taylor-Green vortex simulation using CABARET scheme in a weakly compressible formulation. European Physical Journal E, 2018, 41, 41.	1.6	6
47	Integration of databases on substance properties: Approaches and technologies. Automatic Documentation and Mathematical Linguistics, 2012, 46, 170-176.	0.5	5
48	The Rayleigh-Taylor instability of Newtonian and non-Newtonian fluids. Physica Scripta, 2016, 91, 104006.	2.5	5
49	Some peculiarities of electric discharge between a solid electrode and technical water. High Temperature, 2016, 54, 26-28.	1.0	5
50	Experimental study of an impulse electric discharge with liquid electrodes. High Temperature, 2017, 55, 310-311.	1.0	5
51	Inactivation of Microorganisms on Plane Surfaces by a Dielectric Barrier Discharge. Plasma Physics Reports, 2019, 45, 517-521.	0.9	5
52	Numerical simulation of the Rayleigh-Taylor instability of inviscid and viscous fluid. Physica Scripta, 2019, 94, 094003.	2.5	5
53	Efficient Generator of Low-Temperature Argon Plasma with an Expanding Channel of the Output. High Temperature, 2020, 58, 12-20.	1.0	5
54	Gravity impact on inverted conical flame stability and dynamics. Physics of Fluids, 2021, 33, .	4.0	5

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55	Evolution of electrical discharge channel in isopropyl alcohol solution. Journal of Physics: Conference Series, 2015, 653, 012157.	0.4	4
56	Analysis of the effect of discharge parameters on the shock wave propagation from the discharge chamber channel. Technical Physics, 2015, 60, 471-473.	0.7	4
57	The CABARET method for a weakly compressible fluid flows in one- and two-dimensional implementations. Journal of Physics: Conference Series, 2016, 774, 012094.	0.4	4
58	Premixed combustion study: Turbulence in the nozzle behind grids and spheres. High Temperature, 2016, 54, 403-408.	1.0	4
59	Spark discharge in conductive liquid with microbubbles. Journal of Physics: Conference Series, 2016, 774, 012183.	0.4	4
60	Physical Alloying of Plasma Metallization Nanocomposite Coating by Allotropic Carbon Nanostructures—Part 1: Experimental Research. IEEE Transactions on Plasma Science, 2018, 46, 1775-1780.	1.3	4
61	Experimental Research of Gasdynamic Liquid Drops Breakup in the Supersonic Flow with an Oblique Shock Wave. High Temperature, 2020, 58, 884-892.	1.0	4
62	The simulation of a gas-liquid chemical reactor with dispersed medium. High Temperature, 2010, 48, 572-582.	1.0	3
63	Rayleigh–Taylor instability in a visco-plastic fluid. Physica Scripta, 2010, T142, 014026.	2.5	3
64	Electric conductivity of molecular hydrogen plasma with alkali metal additive. High Temperature, 2011, 49, 138-140.	1.0	3
65	Simulation of chemical transformation wave propagation through a flow reactor with a microbubble medium. High Temperature, 2011, 49, 217-226.	1.0	3
66	Degradation spectra of electrons in the ionosphere. Journal of Physics: Conference Series, 2015, 653, 012120.	0.4	3
67	Experimental modeling of lightning discharge into soil. High Temperature, 2015, 53, 775-778.	1.0	3
68	Shock wave in a gas–liquid bubble medium. High Temperature, 2015, 53, 882-886.	1.0	3
69	Electric breakdown during the pulsed current spreading in the sand. Plasma Physics Reports, 2016, 42, 301-305.	0.9	3
70	Numerical simulation of gas flow past scale model of hypersonic vehicle in wind tunnel. High Temperature, 2017, 55, 280-285.	1.0	3
71	Peculiarities of electric discharge between jet anode and metal cathode. High Temperature, 2017, 55, 935-937.	1.0	3
72	On stability of channel flow of thermoviscous fluid. Thermophysics and Aeromechanics, 2017, 24, 883-900.	0.5	3

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73	The bubble method of water purification. <i>Europhysics Letters</i> , 2018, 121, 48007.	2.0	3
74	Thermoviscous fluid flow modes in a plane nonisothermal layer. <i>Thermophysics and Aeromechanics</i> , 2018, 25, 845-864.	0.5	3
75	Destruction of High-Voltage Transformers in an Explosion and the Interaction of Shock Waves with Walls. <i>High Temperature</i> , 2020, 58, 699-709.	1.0	3
76	Special features of a multichannel discharge with solid and electrolytic electrodes at atmospheric pressure. <i>High Temperature</i> , 2007, 45, 280-281.	1.0	2
77	Certain features of multichannel discharge in a tube under atmospheric pressure. <i>High Temperature</i> , 2011, 49, 762-765.	1.0	2
78	Interaction of a shock wave with a turbulent boundary layer on a heated surface. <i>High Temperature</i> , 2013, 51, 810-815.	1.0	2
79	The turbulent mixing of non-Newtonian fluids. <i>Physica Scripta</i> , 2013, T155, 014019.	2.5	2
80	Optical investigations of pulsed sparks in soil near electrode. <i>Journal of Physics: Conference Series</i> , 2015, 653, 012151.	0.4	2
81	Propagation of current pulses with an amplitude of up to 85 kA in soil over distances of several tens of meters. <i>Plasma Physics Reports</i> , 2016, 42, 177-185.	0.9	2
82	High-pressure ignition plasma torch for aerospace testing facilities. <i>Journal of Physics: Conference Series</i> , 2016, 774, 012185.	0.4	2
83	Plasma Disposal in Problems of Ecology (Review). <i>High Temperature</i> , 2020, 58, 495-519.	1.0	2
84	Turbulent kinetic energy transfer and dissipation in thermoviscous fluid flow. <i>Thermophysics and Aeromechanics</i> , 2020, 27, 539-554.	0.5	2
85	Probe diagnostics of nuclear-excited plasma of uranium hexafluoride. <i>High Temperature</i> , 2010, 48, 789-805.	1.0	1
86	Non-stationary turbulent mixing of multichannel discharge plasma and electrolyte. <i>Physica Scripta</i> , 2010, T142, 014036.	2.5	1
87	Heterogeneous oxidation in a microbubble medium. <i>Russian Journal of Physical Chemistry B</i> , 2011, 5, 250-255.	1.3	1
88	Experimental study of impulse outflow of high temperature gas from a discharge chamber with cylindrical and expanding channels. <i>High Temperature</i> , 2013, 51, 340-350.	1.0	1
89	Generation of metal nanoclusters and microparticles. <i>High Temperature</i> , 2015, 53, 742-750.	1.0	1
90	Investigation of shock wave-boundary layer instability on the heated ramp surface. <i>Journal of Physics: Conference Series</i> , 2015, 653, 012069.	0.4	1

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91	Experimental modeling of lightning strike in soil. Journal of Physics: Conference Series, 2016, 774, 012134.	0.4	1
92	Simulating flow around scaled model of a hypersonic vehicle in wind tunnel. Journal of Physics: Conference Series, 2016, 774, 012095.	0.4	1
93	Discharge between the jet and dropping liquid cathode and metal anode. Journal of Physics: Conference Series, 2017, 927, 012018.	0.4	1
94	Kelvinâ€™Helmholz instability in thermoviscous free shear flow. Journal of Physics: Conference Series, 2018, 946, 012075.	0.4	1
95	Transitional regimes of pulsed electrical discharge in medium-conductivity water. Journal of Physics: Conference Series, 2019, 1147, 012119.	0.4	1
96	Thermoviscous fluid flow in nonisothermal layer: structures, scales, and correlations. Thermophysics and Aeromechanics, 2020, 27, 243-258.	0.5	1
97	Heat-Resistance Tests of High-Temperature Composite Materials via Laser Heating in a Supersonic Flow. High Temperature, 2020, 58, 393-399.	1.0	1
98	Formation of energy spectra of electrons in a dense weakly ionized plasma generated by fission fragments. Contributions To Plasma Physics, 2022, 62, .	1.1	1
99	High-Frequency Discharge with a Jet Electrolytic Electrode. Plasma Physics Reports, 2022, 48, 48-54.	0.9	1
100	Special features of a multichannel discharge with a jet electrolytic anode at atmospheric pressure. High Temperature, 2008, 46, 566-568.	1.0	0
101	Rayleigh-Taylor instability of viscoplastic liquid. High Temperature, 2009, 47, 796-800.	1.0	0
102	Thermal and plasma flow control. Physica Scripta, 2010, T142, 014039.	2.5	0
103	Shock wave in a bubble flow with high gas content. Europhysics Letters, 2011, 94, 54001.	2.0	0
104	Probe measurements of plasma parameters in torch plasmatron. High Temperature, 2014, 52, 145-149.	1.0	0
105	Supersonic nozzle profiling for supersonic aerospace testing in a view of high-temperature of properties of real gases. Journal of Physics: Conference Series, 2015, 653, 012071.	0.4	0
106	Study of Graphite TPS for hypersonic flight conditions in high temperature plasma torch flows. , 2017, , .		0
107	Academician Alexander Ivanovich Leontiev on his 90th birthday. International Journal of Heat and Mass Transfer, 2017, 109, 689.	4.8	0
108	Negatively stretched premixed flames. Journal of Physics: Conference Series, 2018, 946, 012067.	0.4	0

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109	On the Construction of Turbulent Transfer Spectral Models Using 3D Numerical Simulation of Taylor's "Green Vortex Decay. High Temperature, 2018, 56, 921-926.	1.0	0
110	Investigation of turbulent boundary layer separation on the heated ramp surface. Journal of Physics: Conference Series, 2019, 1147, 012051.	0.4	0
111	Steam-gaseous discharges with jet fluid electrodes at the decreased pressure. Journal of Physics: Conference Series, 2019, 1328, 012017.	0.4	0
112	Lowtemperature plasma generator for effective processing of materials. Ferrous Metallurgy Bulletin of Scientific Technical and Economic Information, 2021, 77, 587-592.	0.2	0
113	Double shear layer evolution on the non-uniform computational mesh. Physica Scripta, 0, , .	2.5	0
114	10.1063/5.0068660.1. , 2021, , .		0