Vladimir Chirkov

List of Publications by Year
in descending order

33	260	933447 10	996975 15
papers	citations	h-index	g-index

33	33	33	86
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Formation of electrohydrodynamic flows in strongly nonuniform electric fields for two charge-formation modes. Technical Physics, 2012, 57, 1-11.	0.7	28
2	Electrohydrodynamic flow caused by field-enhanced dissociation solely. Physics of Fluids, 2017, 29, .	4.0	28
3	Currentâ€“time characteristic of the transient regime of electrohydrodynamic flow formation. Journal of Electrostatics, 2013, 71, 484-488.	1.9	19
4	The role of field-enhanced dissociation in electrohydrodynamic flow formation in a highly non-uniform electric field. Journal of Electrostatics, 2018, 93, 104-109.	1.9	16
5	Characteristics of electrohydrodynamic pump of the dissociation type: low and high voltage ranges. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 2709-2717.	2.9	15
6	A modification of the phase-field method to simulate electrohydrodynamic processes in two-phase immiscible liquids and its experimental verification. Journal of Electrostatics, 2020, 107, 103483.	1.9	14
7	Simulation of the integral electric current characteristics of unsteady-state current passage through liquid dielectrics. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 2763-2769.	2.9	13
8	A Method for Estimation of Functional Dependence of Injection Charge Formation on Electric Field Strength. IEEE Transactions on Industry Applications, 2017, 53, 3977-3981.	4.9	12
9	Structure of the near-electrode dissociation-recombination charged layers at various low-voltage conductivities of a low-conducting liquid. Technical Physics, 2013, 58, 1822-1830.	0.7	11
10	Dynamic current-voltage characteristics of weakly conducting liquids in highly non-uniform electric fields. Surface Engineering and Applied Electrochemistry, 2014, 50, 135-140.	0.8	10
11	Study on high-voltage conductivity provided solely by field-enhanced dissociation in liquid dielectrics. Journal of Electrostatics, 2017, 88, 81-87.	1.9	10
12	Structure of near-electrode dissociation-recombination layers under DC stress. Journal of Physics: Conference Series, 2015, 646, 012032.	0.4	9
13	Computer simulation of EHD flows in a needle-plane electrode system. Technical Physics, 2008, 53, 1407-1413.	0.7	8
14	Dependence of the electrohydrodynamic flows structure in very non-uniform electric field on the charge formation mechanism. , 2011, , .		8
15	Features of electrohydrodynamic flows in needle-plane electrode system. , 2008, , .		7
16	A technique for rapid diagnostics of dielectric liquids basing on their high-voltage conductivity. Journal of Electrostatics, 2016, 81, 48-53.	1.9	7
17	The Dependence of the Efficiency of Electrohydrodynamic Heat Exchanger on the Electric Conductivity of Liquid. IEEE Transactions on Industry Applications, 2017, 53, 2440-2445.	4.9	6
18	The interaction between two electrohydrodynamics phenomena when an electric field affects a two-phase immiscible liquid. Physics of Fluids, 2021, 33, .	4.0	6

#	Article	IF	Citations
19	Comparative analysis of numerical simulation and PIV experimental results for a flow caused by field-enhanced dissociation. Journal of Physics: Conference Series, 2015, 646, 012033.	0.4	5
20	Nonequilibrium mechanisms of weak electrolyte electrification under the action of constant voltage. Technical Physics, 2016, 61, 957-964.	0.7	4
21	Numerical estimation of the performance of a flow-type electrohydrodynamic heat exchanger with the streamlined electrode configuration. Journal of Electrostatics, 2019, 97, 31-36.	1.9	4
22	The Experimental Verification of Electrodeformation and Electrocoalescence Numerical Simulation Based on the Arbitrary Lagrangianâ€“Eulerian Method. , 2020, , .		4
23	Investigation of electrohydrodynamic flows in superstrong electric fields. Surface Engineering and Applied Electrochemistry, 2012, 48, 312-317.	0.8	3
24	Breakdown of Water-Oil Emulsions in an Electric Field. Chemical and Petroleum Engineering (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.3	3
25	Effect of temperature on electroconvection and high-voltage current passage in entirely heated dielectric liquid. , 2017, , .		3
26	Optimization of Designs of Electrodehydrators by Computer Simulation. Chemical and Petroleum Engineering (English Translation of Khimicheskoe I Neftyanoe Mashinostroenie), 2013, 49, 371-374.	0.3	2
27	Features of Quantitative Verification of Numerical Models for Computing Electrohydrodynamic Processes in Two-phase Immiscible Liquids. , 2020, , .		2
28	Current pulses caused by streamers in sphere-sphere electrode system. Journal of Physics: Conference Series, 2015, 646, 012042.	0.4	1
29	A Method to Determine the Interfacial Tension for the Conductive Medium/Liquid Dielectric Couple. , 2018, , .		1
30	The Numerical Simulation of the Effect of Nonequilibrium Charged Layers on the Electrodeformation of Conductive Droplet Suspended in a Liquid Dielectric. , 2020, , .		1
31	Integral electric current characteristics of unsteady-state processes of current passage through liquid dielectrics. , 2014, , .		0
32	Characteristics of electrohydrodynamic pump of the dissociation type: Low- and high-voltage ranges. , 2014, , .		0
33	A Method to Determine the Interfacial Tension for the Conductive Medium/Liquid Dielectric Couple. , 2018, , .		0