Sergey A Barengolts

List of Publications by Year
in descending order

37 papers	550 citations	623734 14 h-index	677142 22 g-index
37 all docs	37 docs citations	37 times ranked	173 citing authors

#	Article	IF	Citations
1	Plasmaâ€“liquid interaction during a pulsed vacuum breakdown. Journal of Applied Physics, 2021, 129, .	2.5	15
2	Explosive Parametric Instability of the Free Surface of a Liquid Metal in a Radio Frequency Electric Field. IEEE Transactions on Plasma Science, 2021, 49, 2470-2477.	1.3	4
3	Effect of electrode temperature on radiofrequency vacuum breakdown characteristics. Journal Physics D: Applied Physics, 2021, 54, 065205.	2.8	10
4	Temperature effect on the characteristics of radio frequency vacuum breakdown. , 2021, , .		0
5	Parameters of the microexplosive cathode processes occurring during the initiation of a vacuum breakdown. , 2021, , .		1
6	Cathode and plasma phenomena in vacuum-arc sources of deuterium ions. , 2021, , .		0
7	Cathode and plasma phenomena in vacuum-arc sources of hydrogen isotope ions: I. Desorption of hydrogen isotopes during the operation of vacuum arc cathode spots. Plasma Sources Science and Technology, 2020, 29, 015021.	3.1	15
8	Cathode and plasma phenomena in vacuum-arc sources of hydrogen isotope ions. II. Ionization processes in the arc plasma. Plasma Sources Science and Technology, 2020, 29, 035004.	3.1	15
9	A Quantum Theory of Electron Emission from a Metalâ€“Dielectric Structure in High Electric Fields. Technical Physics, 2020, 65, 994-1001.	0.7	0
10	Ionization Processes in the Arc Plasma of W-fuzz Cathodes. , 2020, , .		0
11	Dynamics of the changes in the parameters of the arc plasma during the destruction of a helium-induced tungsten fuzz by arc pulses. Nuclear Fusion, 2020, 60, 044001.	3.5	11
12	Effect of the Geometry of Cathode Microprotrusions on the Parameters of the Explosive Emission Processes. , 2020, , .		0
13	Prebreakdown Processes in a Metal Surface Microprotrusion Exposed to an RF Electromagnetic Field. IEEE Transactions on Plasma Science, 2019, 47, 3400-3405.	1.3	18
14	Simulation of the Explosion of a Surface Microprotrusion During a Radio Frequency Breakdown. IEEE Transactions on Plasma Science, 2019, 47, 3406-3411.	1.3	17
15	Ignition and Sustainment of Arcing on Nanostructured Tungsten Under Plasma Exposure. IEEE Transactions on Plasma Science, 2019, 47, 3617-3625.	1.3	9
16	Ignition and Sustainment of Arcing on Nanostructured Tungsten under Plasma Exposure. , 2018, , .		1
17	Effect of the Nanostructured Layer Thickness on the Dynamics of Cathode Spots on Tungsten. IEEE Transactions on Plasma Science, 2018, 46, 4044-4050.	1.3	11
18	Ignition and erosion of materials by arcing in fusionâ€relevant conditions. Contributions To Plasma Physics, 2018, 58, 608-615.	1.1	23

#	ARTICLE	IF	CITATIONS
19	Numerical Simulation of Plasma Near the Cathode Spot of Vacuum Arc. IEEE Transactions on Plasma Science, 2017, 45, 3046-3053.	1.3	30
20	Pre-Explosion Phenomena Beneath the Plasma of a Vacuum Arc Cathode Spot. IEEE Transactions on Plasma Science, 2015, 43, 2236-2240.	1.3	15
21	Generation of hydrogen isotope ions in a vacuum arc discharge with a composite zirconium deuteride cathode. Technical Physics, 2015, 60, 989-999.	0.7	30
22	Model calculation of the charge composition of a plasma in a vacuum-arc discharge with a composite cathode. Technical Physics Letters, 2015, 41, 500-503.	0.7	6
23	Erosion cell formation in the pulseless negative corona discharge. Bulletin of the Lebedev Physics Institute, 2015, 42, 71-76.	0.6	2
24	Mass-to-Charge State of Vacuum Arc Plasma With a Film-Coated Composite Cathode. IEEE Transactions on Plasma Science, 2015, 43, 2318-2322.	1.3	5
25	Plasma mass-charge composition of a vacuum arc with deuterium saturated zirconium cathode. Technical Physics Letters, 2014, 40, 1072-1074.	0.7	15
26	The effect of cathode deuteration on the parameters of vacuum-arc plasma. Technical Physics Letters, 2014, 40, 783-786.	0.7	25
27	Transition in velocity and grouping of arc spot on different nanostructured tungsten electrodes. Results in Physics, 2014, 4, 33-39.	4.1	27
28	Modeling of Cathode Plasma Flare Expansion. IEEE Transactions on Plasma Science, 2013, 41, 1964-1968.	1.3	29
29	Kinetic Modeling of Initiation of Explosion Center on Cathode Under Dense Plasma. IEEE Transactions on Plasma Science, 2013, 41, 1959-1963.	1.3	30
30	Characteristic length and enhancement time of a runaway electron avalanche in strong electric fields. Technical Physics Letters, 2012, 38, 604-608.	0.7	15
31	Explosive Electron Emission Ignition at the â€œW-Fuzzâ€•Surface Under Plasma Power Load. IEEE Transactions on Plasma Science, 2011, 39, 1900-1904.	1.3	27
32	Simulation of the formation of an electron ring by picosecond electron beams in a cusp-type magnetic system. Technical Physics, 2010, 55, 557-564.	0.7	1
33	Phenomenological model of the unstable stage of a vacuum spark discharge. Technical Physics, 2009, 54, 1446-1453.	0.7	4
34	Model of Collective Acceleration of Ions in Spark Stage of Vacuum Discharge. IEEE Transactions on Plasma Science, 2009, 37, 1375-1378.	1.3	9
35	Initiation of ecton processes by interaction of a plasma with a microprotrusion on a metal surface. Journal of Experimental and Theoretical Physics, 2008, 107, 1039-1048.	0.9	52
36	Mechanism of ion flow generation in vacuum arcs. Journal of Experimental and Theoretical Physics, 2001, 93, 1065-1073.	0.9	61

#	Article	IF	Citations
37	Heating and failure of niobium tip cathodes due to a high-density pulsed field electron emission Society B, Microelectronics Processing and Phenomena, 1995, 13, 1960.	1.6	17