

**Список научных публикаций Золотухина Дениса Борисовича,
в которых изложены основные научные результаты диссертации
на соискание ученой степени доктора физико-математических наук на тему «Генерация и исследование пучковой и газоразрядной
плазмы для модификации материалов и электрореактивного движения»,
в журналах первого (Q1) и второго (Q2) квартилей по международной базе Web of Science**

№ п/п	Название	Квартиль журнала в WoS на момент выхода статьи	Название журнала (название, номер, год, страницы, DOI)	Количество страниц	Фамилии соавторов
Статьи Web of Science Q1					
1	Electron beam synthesis of silicon-carbon coatings in the forevacuum pressure range	Q1	Ceramics International. – 2022. – Vol. 48, No. 10. –P. 13890-13894, https://doi.org/10.1016/j.ceramint.2022.01.273	5 стр.	<u>D.B. Zolotukhin</u> , A.V. Kazakov, E.M. Oks, A.V. Tyunkov, Yu.G. Yushkov
2	Electron-beam heating of ceramics to moderate temperature at fore-vacuum pressure	Q1	Radiation Physics and Chemistry. – 2022. – Vol. 197 – P. 110169, https://doi.org/10.1016/j.radphyschem.2022.110169	6 стр.	<u>D.B. Zolotukhin</u> , E.M. Oks, A.V. Tyunkov, Y.G. Yushkov
3	Synthesis of magneto-dielectric coatings in electron-beam produced plasma in medium vacuum	Q1	Ceramics International. – 2021. – Vol. 47, No. 24. – P. 34704–34711, https://doi.org/10.1016/j.ceramint.2021.09.009 .	7 стр.	<u>D.B. Zolotukhin</u> , A.V. Tyunkov, Yu.G. Yushkov, V.A. Zhuravlev
4	Estimation and control of low (<100 V) potential on a dielectric target irradiated by an electron beam at fore-vacuum pressure	Q1	Plasma Sources Science and Technology. – 2021. – Vol. 30, No. 8. – P. 085010, https://doi.org/10.1088/1361-6595/ac1b21 .	8 стр.	<u>D.B. Zolotukhin</u> , V.A. Burdovitsin, E.M. Oks
5	Onset of the magnetized arc and its effect on the momentum of a low-power two-stage pulsed magneto plasma-dynamic thruster	Q1	Physical Review E. – 2020. – Vol. 102, No. 2. – P. 021203, https://doi.org/10.1103/PhysRevE.102.021203 .	6 стр.	<u>D. B. Zolotukhin</u> , K. P. Daniels, L. Brieda, M. Keidar
6	Magnetoplasmadynamic two-stage micro-cathode arc thruster for CubeSats	Q1	Plasma Sources Science and Technology. – 2019. – Vol. 28, No. 10. – P. 105001, https://doi.org/10.1088/1361-6595/ab4170 .	12 стр.	<u>D.B. Zolotukhin</u> , K.P. Daniels, S.R.P. Bandaru, M. Keidar
7	Anode ablation and performance improvement of micro-cathode arc thruster	Q1	Plasma Sources Science and Technology. – 2019. – Vol. 28, No. 3. – P. 034001, https://doi.org/10.1088/1361-6595/ab01ec .	9 стр.	<u>D. Zolotukhin</u> , S. Hurley, M. Keidar

8	Beam-plasma discharge in a dielectric cavity by electron beam injection	Q1	Plasma Sources Science and Technology. – 2019. – Vol. 28, No. 3. – P. 035018 (11pp), https://doi.org/10.1088/1361-6595/ab0942 .	11 стр.	<u>D.B. Zolotukhin</u> , M.I. Lomaev, E.M. Oks, A.V. Tyunkov, Yu.G. Yushkov
9	Optimization of discharge triggering in micro-cathode vacuum arc thruster for CubeSats	Q1	Plasma Sources Science and Technology. – 2018. – Vol. 27. – P. 074001 (9pp), https://doi.org/10.1088/1361-6595/aacdb0 .	9 стр.	<u>D. Zolotukhin</u> , M. Keidar
10	Generation of uniform electron beam plasma in a dielectric flask at fore-vacuum pressures	Q1	Plasma Sources Sci. Technol. – 2016. – Vol. 25, № 1. – P. 015001, https://doi.org/10.1088/0963-0252/25/1/015001 .	8 стр.	<u>D.B. Zolotukhin</u> , V.A. Burdovitsin, E.M. Oks
11	Mass-to-charge ion composition of plasma in a magnetron discharge with reactive sputtering of titanium target	Q1	Plasma Processes and Polymers. – 2020. – Vol.18, No. 3. – P. 2000210, https://doi.org/10.1002/ppap.202000210 .	7 стр.	A.V. Tyunkov, V.A. Burdovitsin, E.M. Oks, M.V. Shandrikov, Yu.G. Yushkov, S.M. Zavadsky, <u>D.B. Zolotukhin</u>
12	On the effect of ceramic target composition on coatings deposited by electron-beam evaporation at forevacuum pressure	Q1	Ceramics International. – 2020. – Vol. 46, No.17. – P. 27641–27646, https://doi.org/10.1016/j.ceramint.2020.07.259 .	6 стр.	Y.G. Yushkov, E.M. Oks, K.V. Oskomov, A.V. Tyunkov, E.V. Yakovlev, A.Yu. Yushenko, A.A. Plaskeev, <u>D.B. Zolotukhin</u>
13	Ion composition of a multicomponent beam plasma formed by electron-beam evaporation of a boron-containing target in medium vacuum	Q1	Plasma Processes and Polymers. – 2020. – Vol. 17, No. 9. – P. 2000057, https://doi.org/10.1002/ppap.202000057 .	7 стр.	Yu.G. Yushkov, E.M. Oks, A.V. Tyunkov, <u>D.B. Zolotukhin</u>
14	Electron-Beam Deposition of Heat-Conducting Ceramic Coatings in the Fore Vacuum Pressure Range	Q1	Ceramics International. – 2020. – Vol. 46, No. 13. – P. 21190-21195, https://doi.org/10.1016/j.ceramint.2020.05.197 .	6 стр.	Yu.G. Yushkov, E.M. Oks, A.V. Tyunkov, <u>D.B. Zolotukhin</u> , A.Yu. Yushenko, A. Yu. Yushkov
15	Nitriding of titanium in electron beam excited plasma in medium vacuum	Q1	Surface and Coatings Technology. – 2020. – Vol. 383. – P. 125241, https://doi.org/10.1016/j.surfcoat.2019.125241 .	8 стр.	A.V. Tyunkov, D.A. Golosov, <u>D.B. Zolotukhin</u> , A.V. Nikonenko, E.M. Oks, Yu.G. Yushkov, E.V. Yakovlev
16	Deposition of boron-containing coatings by electron-beam evaporation of boron-containing targets	Q1	Ceramics International. – 2020. – Vol. 46, No. 4. – P. 4519-4525, https://doi.org/10.1016/j.ceramint.2019.10.179 .	7 стр.	Yu.G Yushkov, E.M Oks, A.V. Tyunkov, C. Corbella, <u>D.B. Zolotukhin</u>

17	Pulsed anodic arc discharge for the synthesis of carbon nanomaterials	Q1	Plasma Sources Sci. Technol. – 2019. – Vol. 28. – P. 045016 (15 pp.), https://doi.org/10.1088/1361-6595/ab123c .	15 стр.	C. Corbella, S. Portal, <u>D. B. Zolotukhin</u> , L. Martinez, L. Lin, M. N. Kundrapu, M. Keidar
18	Alumina coating deposition by electron-beam evaporation of ceramic using a forevacuum plasma-cathode electron source	Q1	Ceramics International. – 2019. – Vol. 45, No. 8. – P. 9782–9787, https://doi.org/10.1016/j.ceramint.2019.02.014 .	6 стр.	Yu.G. Yushkov, E.M. Oks, A.V. Tyunkov, <u>D.B. Zolotukhin</u>
19	Electron beam nitriding of titanium in medium vacuum	Q1	Surface & Coatings Technology. – 2019. – Vol. 358. – P. 726–731, https://doi.org/10.1016/j.surfcoat.2018.11.081 .	6 стр.	V.A. Burdovitsin, D.A. Golosov, E.M. Oks, A.V. Tyunkov, Yu.G. Yushkov, <u>D.B. Zolotukhin</u> , S.M. Zavadsky
20	Characterization of inductively coupled plasma generated by a quadruple antenna	Q1	Plasma Sources Sci. Technol. – 2017. – Vol. 26, № 2. – P. 025005 (13 pp.), https://doi.org/10.1088/1361-6595/aa5300 .	13 стр.	G. Shafir, <u>D.B. Zolotukhin</u> , V.A. Godyak, S. Gleizer, Ya. Slutsker, R. Gad, V. Bernshtam, Yu. Ralchenko, Ya. E. Krasik.
Статьи Web of Science Q2					
21	Electron-Beam Synthesis of Dielectric Coatings Using Forevacuum Plasma Electron Sources (Review)	Q2	Coatings. – 2022. – Vol. 12, No. 1. – P. 82 (1–39), https://doi.org/10.3390/coatings12010082 .	39 стр.	Yu.G. Yushkov, E.M. Oks, A.V. Tyunkov, <u>D.B. Zolotukhin</u>
22	Effect of a dielectric cavity on the ion etching of dielectrics by electron beam-produced plasma generated by a forevacuum plasma electron source	Q2	Vacuum. – 2021. – Vol. 192. – P. 110483, https://doi.org/10.1016/j.vacuum.2021.110483 .	5 стр.	<u>D.B. Zolotukhin</u> , E.M. Oks, A.V. Tyunkov, E.V. Yakovlev, Yu.G. Yushkov
23	Electron-beam deposition of magneto-dielectric coatings in the forevacuum pressure range	Q2	Vacuum. – 2020. – Vol. 184. – P. 109944 (1-5), https://doi.org/10.1016/j.vacuum.2020.109944 .	5 стр.	<u>D.B. Zolotukhin</u> , A.A. Klimov, E.M. Oks, A.V. Tyunkov, Yu.G. Yushkov, A.A. Zenin
24	Discharge characteristics of two-stage micro-cathode arc MPD thrusters with a permanent magnet and a pulsed magnetic field	Q2	Journal of Physics D: Applied Physics. – 2021. – Vol. 51, No. 1. – P. 015201, https://doi.org/10.1088/1361-6463/abb7ba .	10 стр.	<u>D. B. Zolotukhin</u> , K. P. Daniels, M. Keidar
25	Effect of surrounding metallic walls on the floating potential of the target under electron-beam irradiation in medium vacuum	Q2	Vacuum. – 2020. – Vol. 181. – P. 109663 (1-6), https://doi.org/10.1016/j.vacuum.2020.109663 .	6 стр.	<u>D.B. Zolotukhin</u> , V.A. Burdovitsin, E.M. Oks, K.I. Karpov

26	Effect of working gas on the electron-beam heating of a ceramic target in the fore-vacuum pressure range	Q2	Vacuum. – 2020. – Vol. 173. – P. 109500 (1–5), https://doi.org/10.1016/j.vacuum.2020.109500 .	5 стр.	<u>D.B.Zolotukhin</u> , E.M.Oks, A.V.Tyunkov, Yu.G.Yushkov, A.A.Zenin
27	Improvement of micro-cathode arc thruster lifetime by deposition of boron-containing coating	Q2	Journal of Propulsion and Power. – 2020. – Vol. 36, No. 5. – P. 744–751, https://doi.org/10.2514/1.B37790 .	8 стр.	<u>D.B. Zolotukhin</u> , A.V. Tyunkov, Yu.G. Yushkov, E.M. Oks, M. Keidar
28	On the influence of electron-beam metal evaporation on parameters of beam plasma in medium vacuum	Q2	Physics of Plasmas. – 2019. – Vol. 26, No. 5. – P. 053512, https://doi.org/10.1063/1.5095165 .	5 стр.	<u>D.B. Zolotukhin</u> , V.A. Burdovitsin, E. Oks, A.V. Tyunkov, Yu. G. Yushkov
29	On the role of secondary electrons in beam plasma generation inside a dielectric flask by fore-vacuum plasma-cathode electron source	Q2	Physics of Plasmas. – 2017. – Vol. 24, No. 9. – P. 093502, https://doi.org/10.1063/1.4991636 .	7 стр.	<u>D.B. Zolotukhin</u> , V.A. Burdovitsin, E.M. Oks
30	Controlling the surface potential of a dielectric target irradiated by an electron beam in medium vacuum	Q2	Vacuum. – 2021. – Vol. 187. – P. 110120 (1–5), https://doi.org/10.1016/j.vacuum.2021.110120 .	5 стр.	V.A. Burdovitsin, K.I. Karpov, E.M. Oks, <u>D.B. Zolotukhin</u>
31	Local ion-plasma etching of dielectrics initiated and controlled by the electron beam in fore-vacuum pressure range	Q2	Vacuum. – 2020. – Vol. 180. – P. 109573 (1–5), https://doi.org/10.1016/j.vacuum.2020.109573 .	5 стр.	A.V. Tyunkov, <u>D.B. Zolotukhin</u> , Yu.G. Yushkov, E.V. Yakovlev
32	Advancing the Microcathode Arc Thruster: Effect of the Ablative Anode	Q2	Journal of Propulsion and Power. – 2019. – Vol. 35, No. 5. – P. 917-921, http://dx.doi.org/10.2514/1.B37145 .	5 стр.	S. Hurley, <u>D. Zolotukhin</u> , M. Keidar
33	Plasma-enabled healing of graphene nano-platelets layer	Q2	Frontiers of chemical science and engineering. – 2019. – P. 1-10, https://doi.org/10.1007/s11705-018-1787-7 .	10 стр.	X. Fang, C. Corbella, <u>D.B. Zolotukhin</u> , M. Keidar
34	On the connection between secondary electron emission yield and the potential of an electron-beam-irradiated target	Q2	J. Phys. D: Appl. Phys. – 2019. – Vol. 52. – P. 285204 (7 pp.), https://doi.org/10.1088/1361-6463/ab1381 .	7 стр.	V.A. Burdovitsin, <u>D. B. Zolotukhin</u> , E.M. Oks, N.A. Panchenko
35	Effect of collector potential on the beam-plasma formed by a forevacuum-pressure plasma-cathode electron beam source	Q2	Journal of Physics D: Applied Physics. – 2018. – Vol. 51. – P. 304006 (5 pp.), https://doi.org/10.1088/1361-6463/aace4a .	5 стр.	Burdovitsin V.; Oks E.; <u>Zolotukhin D.</u>

Подтверждение принадлежности журналов, в которых изложены основные научные результаты диссертации, к 1-му и 2-му квартилям по базе Web of Science

<https://jcr.clarivate.com/jcr/browse-journals>

The screenshot shows the 'Journal Citation Reports' interface. At the top, there are navigation links for 'Browse journals', 'Browse categories', and 'Browse publishers'. A search bar is present with the placeholder text 'Journal name/abbreviation, ISSN/eISSN, category, publisher'. Below the search bar, there are several filter buttons for different journal categories, including 'CERAMICS INTERNATIONAL', 'PLASMA SOURCES SCIENCE & TECHNOLOGY', 'PHYSICAL REVIEW E', 'Plasma Processes and Polymers', 'SURFACE & COATINGS TECHNOLOGY', 'VACUUM', 'JOURNAL OF PHYSICS D-APPLIED PHYSICS', 'JOURNAL OF PROPULSION AND POWER', 'PHYSICS OF PLASMAS', 'Coatings', 'Frontiers of Chemical Science and ...', and 'RADIATION PHYSICS AND CHEMISTRY'. A table lists 12 journals with columns for 'Journal name', 'ISSN', 'eISSN', 'Category', 'Total Citations', '2020 JIF', 'JIF Quartile', '2020 JCI', and '5 Year JIF'. A 'Filter' button on the left side of the table shows '12' items are currently selected.

Journal name	ISSN	eISSN	Category	Total Citations	2020 JIF	JIF Quartile	2020 JCI	5 Year JIF
<input type="checkbox"/> PHYSICAL REVIEW E	2470-0045	2470-0053	Multiple	107,073	2.529	Q1	1.07	2.414
<input type="checkbox"/> CERAMICS INTERNATIONAL	0272-8842	1873-3956	MATERIALS SCIENCE, CERAMICS - SCIE	81,215	4.527	Q1	1.28	4.049
<input type="checkbox"/> SURFACE & COATINGS TECHNOLOGY	0257-8972	1879-3347	Multiple	54,675	4.158	Q1	0.88	3.958
<input type="checkbox"/> JOURNAL OF PHYSICS D-APPLIED PHYSICS	0022-3727	1361-6463	PHYSICS, APPLIED - SCIE	48,515	3.207	Q2	0.58	3.041
<input type="checkbox"/> PHYSICS OF PLASMAS	1070-664X	1089-7674	PHYSICS, FLUIDS & PLASMAS - SCIE	31,699	2.023	Q3	0.78	1.839
<input type="checkbox"/> VACUUM	0042-207X	1879-2715	Multiple	14,413	3.627	Q2	0.73	3.118
<input type="checkbox"/> RADIATION PHYSICS AND CHEMISTRY	0969-806X	1879-0895	Multiple	11,252	2.858	Q1	0.88	2.411
<input type="checkbox"/> PLASMA SOURCES SCIENCE & TECHNOLOGY	0963-0252	1361-6595	PHYSICS, FLUIDS & PLASMAS - SCIE	9,901	3.584	Q1	1.31	3.928
<input type="checkbox"/> JOURNAL OF PROPULSION AND POWER	0748-4658	1533-3876	ENGINEERING, AEROSPACE - SCIE	6,579	1.500	Q2	0.91	1.814
<input type="checkbox"/> Coatings	N/A	2079-6412	Multiple	6,391	2.881	Q2	0.55	3.038
<input type="checkbox"/> Plasma Processes and Polymers	1612-8850	1612-8869	Multiple	5,080	3.872	Q1	0.84	3.448
<input type="checkbox"/> Frontiers of Chemical Science and Engineering	2095-0179	2095-0187	ENGINEERING, CHEMICAL - SCIE	2,061	4.204	Q2	0.60	4.117

Rank by Journal Citation Indicator (JCI) ?

Journals within a category are sorted in descending order by Journal Citation Indicator (JCI) resulting in the Category Ranking below. A separate rank is shown for each category in which the journal is listed in JCR. Data for the most recent year is presented at the top of the list, with other years shown in reverse chronological order. [Learn more](#)

CATEGORY

PHYSICS, FLUIDS & PLASMAS

14/36

JCR YEAR	JCI RANK	JCI QUARTILE	JCI PERCENTILE	
2020	15/36	Q2	59.72	<div style="width: 59.72%;"></div>
2019	14/36	Q2	62.50	<div style="width: 62.50%;"></div>
2018	12/36	Q2	68.06	<div style="width: 68.06%;"></div>
2017	10/36	Q2	73.61	<div style="width: 73.61%;"></div>
2019	14/36	Q2	62.50	<div style="width: 62.50%;"></div>

The screenshot shows the Clarivate Journal Citation Reports interface for the journal 'PHYSICS OF PLASMAS'. The page includes a navigation bar with 'Journal Citation Reports', 'Browse journals', and 'Browse categories'. A 'JCR YEAR' dropdown is set to 2019. The journal title 'PHYSICS OF PLASMAS' is prominently displayed. Below the title, the ISSN (1070-664X) and EISSN (1089-7674) are listed, along with the JCR abbreviation 'PHYS PLASMAS' and the ISO abbreviation 'Phys. Plasmas'. On the right side, there is a 'Journal information' section containing details such as the edition (Science Citation Index Expanded (SCIE)), category (PHYSICS, FLUIDS & PLASMAS - SCIE), languages (English), region (USA), and 1st electronic JCR year (1997). A 'Publisher information' section at the bottom right lists the publisher as AMER INST PHYSICS, with the address 1305 WALT WHITMAN RD, STE 300, MELVILLE, NY 11747-4501, and a publication frequency of 1 issue/year.