

# Valentin Borisevich

## List of Publications by Year in descending order

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papers

589

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687363

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g-index

85

all docs

85

docs citations

85

times ranked

63

citing authors

#	ARTICLE	IF	CITATIONS
1	Classification of model cascades for separation of multicomponent isotope mixtures. Separation Science and Technology, 2021, 56, 1060-1070.	2.5	5
2	The non-isothermal BÃ¶dewadt problem applied to an advanced plasma centrifuge. Journal of Applied Physics, 2021, 130, .	2.5	3
3	Application of the Dorodnitsyn Transformation for Analysis of Heat and Mass Transfer in Rotating Flows. Fluid Dynamics, 2021, 56, 1038-1048.	0.9	0
4	Isotope separation of low boiling-point substances by plasma centrifuge with circulation. Separation Science and Technology, 2020, 55, 1829-1838.	2.5	2
5	Numerical study on coupling mode of mechanical and thermal drive. Journal of Physics: Conference Series, 2020, 1696, 012002.	0.4	0
6	On the relationship between non-mixing cascade and a cascade with constant partial cuts for separation of multi-component mixtures. Journal of Physics: Conference Series, 2020, 1696, 012007.	0.4	0
7	Peculiar properties of transient processes in cascades with additional product flow. Journal of Physics: Conference Series, 2020, 1696, 012008.	0.4	0
8	Plasma Centrifuge With Crossed E Ã– B Fields and Thermally Driven Countercurrent Flow. IEEE Transactions on Plasma Science, 2020, 48, 3472-3478.	1.3	6
9	Objective function at optimization of separation cascades. AIP Conference Proceedings, 2019, , .	0.4	1
10	Magnetohydrodynamics and Heat Transfer in Rotating Flows. Journal of Engineering Physics and Thermophysics, 2019, 92, 169-175.	0.6	4
11	Three-Dimensional Flows in a Rotating Cylinder in the Presence of Turbulent Boundary Layers on End Disks. Fluid Dynamics, 2019, 54, 457-465.	0.9	0
12	Maximizing separation performance of q-cascades for multicomponent isotope separation. Separation Science and Technology, 2018, 53, 97-109.	2.5	5
13	Efficiency criteria for optimization of separation cascades for uranium enrichment. Nuclear Engineering and Technology, 2018, 50, 126-131.	2.3	9
14	Calcium Isotope Separation in a Hot-Wall Plasma Centrifuge. Technical Physics Letters, 2018, 44, 1195-1197.	0.7	1
15	Plasma centrifuge with axial circulation for calcium isotope separation. Physics of Plasmas, 2018, 25, 113503.	1.9	6
16	Optimization of cascades with variable overall separation factors by various efficiency criteria. Journal of Physics: Conference Series, 2018, 1099, 012009.	0.4	10
17	A homotopy algorithm to solve the problems of flows under strong rotation. Journal of Physics: Conference Series, 2018, 1099, 012010.	0.4	0
18	Plasma centrifuge for isotope separation with axial circulation caused by a traveling magnetic field. Journal of Physics: Conference Series, 2018, 1099, 012011.	0.4	2

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19	On the scoop heating effect of a gas centrifuge in numerical simulation. Journal of Physics: Conference Series, 2018, 1099, 012012.	0.4	1
20	Circulation Plasma Centrifuge with Product Flow. Technical Physics, 2018, 63, 768-771.	0.7	4
21	Separation Potential for Multicomponent Mixtures: State-of-the Art of the Problem. Journal of Engineering Physics and Thermophysics, 2017, 90, 251-257.	0.6	9
22	The concept of a plasma centrifuge with a high frequency rotating magnetic field and axial circulation. Physica Scripta, 2017, 92, 075601.	2.5	14
23	Circulation control in magnetohydrodynamic rotating flows. Journal of Fluid Mechanics, 2017, 829, 328-344.	3.4	20
24	Numerical modeling and optimization of the Iguassu gas centrifuge. AIP Conference Proceedings, 2017, , .	0.4	4
25	Cascade design for isotopically modified molybdenum as an alternative to zirconium alloys. Chemical Engineering Research and Design, 2017, 128, 257-264.	5.6	13
26	Enhancing the performance of Q-cascade for separating intermediate components. Journal of Physics: Conference Series, 2016, 751, 012004.	0.4	5
27	Adaptive system for automatic stabilization of the power factor for electric drives of separation device by means of serially connected capacitors bank. Journal of Physics: Conference Series, 2016, 751, 012011.	0.4	0
28	The computer simulation of 3d gas dynamics in a gas centrifuge. Journal of Physics: Conference Series, 2016, 751, 012017.	0.4	3
29	Dependence of optimal separative power of the "high-speed" Iguassu centrifuge on pressure of working gas. Journal of Physics: Conference Series, 2016, 751, 012008.	0.4	0
30	Numerical modelling of the flow and isotope separation in centrifuge Iguassu for different lengths of the rotor. AIP Conference Proceedings, 2016, , .	0.4	2
31	Two optimal working regimes of the "long" Iguassu gas centrifuge. Journal of Physics: Conference Series, 2016, 751, 012009.	0.4	0
32	Three-dimensional rotational MHD flows in bounded volumes. Fluid Dynamics, 2016, 51, 620-628.	0.9	0
33	Isotopically modified molybdenum for safe nuclear power. Theoretical Foundations of Chemical Engineering, 2016, 50, 1049-1057.	0.7	12
34	Laminar Magnetohydrodynamic Boundary Layer on a Disk in the Presence of External Rotating Flow and Suction. Journal of Engineering Physics and Thermophysics, 2016, 89, 1591-1597.	0.6	2
35	Peculiarities of the transient processes in cascades for separation of isotope mixtures with various numbers of components. Journal of Physics: Conference Series, 2016, 751, 012006.	0.4	4
36	Further optimization of Q-cascades. Chemical Engineering Research and Design, 2015, 100, 509-517.	5.6	9

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37	Magnetohydrodynamic Phenomena and Heat Transfer Near a Rotating Disk. Journal of Engineering Physics and Thermophysics, 2015, 88, 1513-1521.	0.6	4
38	Effect of Bellows on the Separation of Uranium Isotopes in a Supercritical Gas Centrifuge. Atomic Energy, 2014, 117, 106-110.	0.4	0
39	A numerical method of cascade analysis and design for multi-component isotope separation. Chemical Engineering Research and Design, 2014, 92, 2649-2658.	5.6	13
40	On a Formula to Evaluate the Separative Power of Long Gas Centrifuges. Separation Science and Technology, 2014, 49, 329-334.	2.5	12
41	Comparison of the Circulation Efficiency in gas Centrifuges with Different Geometric and Speed Characteristics for Uranium Enrichment. Atomic Energy, 2014, 116, 363-371.	0.4	4
42	A generalization of the virtual components concept for numerical simulation of multi-component isotope separation in cascades. Chemical Engineering Science, 2014, 120, 105-111.	3.8	7
43	Verification of software codes for simulation of unsteady flows in a gas centrifuge. Computational Mathematics and Mathematical Physics, 2013, 53, 789-797.	0.8	15
44	Application Limits of the Classical Concepts "Separation Potential" and "Separation Power". Atomic Energy, 2013, 114, 412-420.	0.4	5
45	Isotopically Selective Mass Transfer in the Q-Cascade with Losses of Working Substance. Separation Science and Technology, 2013, 48, 15-21.	2.5	5
46	Assessment of parameters of gas centrifuge and separation cascade basing on integral characteristics of separation plant. Nuclear Engineering and Design, 2013, 265, 1066-1070.	1.7	5
47	The Q-Cascade Explanation. Separation Science and Technology, 2012, 47, 1591-1595.	2.5	18
48	Evaluation of specific cost of obtainment of lead-208 isotope by gas centrifuges using various raw materials. Theoretical Foundations of Chemical Engineering, 2012, 46, 373-378.	0.7	13
49	On the theory of countercurrent flow in a rotating viscous heat-conducting gas. Computational Mathematics and Mathematical Physics, 2011, 51, 208-221.	0.8	7
50	New approach to optimize Q-cascades. Chemical Engineering Science, 2011, 66, 393-396.	3.8	31
51	Use of the Q-cascade in calculation and optimization of multi-isotope separation. Chemical Engineering Science, 2011, 66, 2997-3002.	3.8	18
52	Influence of feed flow profile of cascade stages on the mass transfer of intermediate components. Theoretical Foundations of Chemical Engineering, 2010, 44, 888-896.	0.7	15
53	The concept of the use of recycled uranium for increasing the degree of security of export deliveries of fuel for light-water reactors. Physics of Atomic Nuclei, 2010, 73, 2264-2270.	0.4	5
54	Comparative Study of the Model and Optimum Cascades for Multicomponent Isotope Separation. Separation Science and Technology, 2010, 45, 2113-2118.	2.5	36

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55	Depleted zinc: Properties, application, production. Applied Radiation and Isotopes, 2009, 67, 1167-1172.	1.5	6
56	Calculation of a square cascade with losses of the working material in the steps and pipelines during separation of multicomponent isotopic mixtures. Atomic Energy, 2008, 104, 23-32.	0.4	6
57	The separation power and thermodynamic work of separation for a three-flow unit during the equilibrium separation of a binary gas mixture. Russian Journal of Physical Chemistry A, 2008, 82, 1239-1242.	0.6	24
58	Comparison of optimal and model cascades for the separation of multicomponent mixtures at arbitrary stage enrichments. Theoretical Foundations of Chemical Engineering, 2008, 42, 347-353.	0.7	10
59	Ideal and Optimum Cascades. Separation Science and Technology, 2008, 43, 3377-3392.	2.5	12
60	Calculational study of the enrichment of cadmium isotopes in gas centrifuges. Theoretical Foundations of Chemical Engineering, 2007, 41, 851-858.	0.7	5
61	Quasi-ideal cascades with an additional flow for separation of multicomponent isotope mixtures. Theoretical Foundations of Chemical Engineering, 2006, 40, 5-13.	0.7	32
62	Special features of the enrichment of components with intermediate mass in a quasi-ideal cascade. Atomic Energy, 2006, 100, 53-59.	0.4	6
63	CASCADES FOR SEPARATION OF MULTICOMPONENT ISOTOPE MIXTURES. Separation Science and Technology, 2001, 36, 1769-1817.	2.5	47
64	SEPARATION OF MULTICOMPONENT ISOTOPE MIXTURES BY GAS CENTRIFUGE. Separation Science and Technology, 2001, 36, 1697-1735.	2.5	7
65	On a Criterion Efficiency for Multi-Isotope Mixtures Separation. Separation Science and Technology, 1999, 34, 343-357.	2.5	15
66	Application of stable isotopes in Russian Federation. Journal of Radioanalytical and Nuclear Chemistry, 1996, 205, 181-184.	1.5	5
67	Numerical investigation of the separation of sulfur isotopes in a single gas centrifuge. Atomic Energy, 1994, 76, 454-458.	0.4	9
68	Viscous-fluid flow in a thin layer on the side surface of a rotating braking-upper-end cylinder. Journal of Engineering Physics and Thermophysics, 1992, 62, 589-594.	0.6	0
69	?Paradoxical? circulating rarefied gas flow in a short rotating cylinder with a fixed end face. Fluid Dynamics, 1992, 27, 148-150.	0.9	0
70	Flow and separation in a gas centrifuge with beams-type circulation. Soviet Atomic Energy, 1992, 72, 39-42.	0.1	3
71	Flow and separation of a rarefied binary gas mixture in a cylindrical gap with supersonic rotation of the outer cylinder. Journal of Applied Mechanics and Technical Physics, 1991, 31, 799-801.	0.5	0
72	The optimal flow structure in a gas centrifuge for separating uranium isotopes. Soviet Atomic Energy, 1991, 70, 36-42.	0.1	12

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73	Action of the Hall effect on flow and heat transport in a conductive gas flow near a rotating disk. Journal of Engineering Physics, 1990, 59, 875-878.	0.0	0
74	Circulating rarefied gas flow in a rotating cylinder with a stationary upper end face. Fluid Dynamics, 1990, 25, 492-494.	0.9	1
75	Numerical investigation of viscous gas secondary flows in a rotating cylinder with sources and sinks. Fluid Dynamics, 1990, 24, 520-524.	0.9	3
76	Investigation of supersonic rarefied gas flow in a cylindrical gap. Fluid Dynamics, 1989, 24, 484-487.	0.9	1
77	Mechanical and thermal excitation of a flow of viscous gas in a rotating cylinder. Fluid Dynamics, 1988, 22, 513-517.	0.9	1
78	Flow and heat transfer in a laminar compressible boundary layer on a rotating disk in the presence of strong uniform suction. Fluid Dynamics, 1988, 22, 804-807.	0.9	4
79	Optimum feed coordinate in a column separator. Journal of Engineering Physics, 1988, 55, 1044-1047.	0.0	0
80	Effects of viscous dissipation and Joule heat on heat transfer near a rotating disk in the presence of intensive suction. Journal of Engineering Physics, 1988, 55, 1220-1223.	0.0	8
81	Effect of suction on laminar compressive flow and heat transfer close to a disk rotating in a gas. Journal of Applied Mechanics and Technical Physics, 1987, 28, 207-211.	0.5	1
82	Boundary layer on a disk rotating in a uniform axial flow with suction. Fluid Dynamics, 1986, 20, 647-651.	0.9	2
83	Calculation of a laminar boundary layer on a rotating porous disk. Journal of Engineering Physics, 1985, 49, 1498-1502.	0.0	0
84	Influence of Radial Change in Gas Density on Nonlinear Hydrodynamic Effects in Its Flow Over a Rotating Disk. Journal of Engineering Physics and Thermophysics, 0, , .	0.6	0