Valentin Borisevich

List of Publications by Year
in descending order

84	589	686830 13	752256 20
papers	citations	h-index	g-index

85	85	85	63
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	CASCADES FOR SEPARATION OF MULTICOMPONENT ISOTOPE MIXTURES. Separation Science and Technology, 2001, 36, 1769-1817.	1.3	47
2	Comparative Study of the Model and Optimum Cascades for Multicomponent Isotope Separation. Separation Science and Technology, 2010, 45, 2113-2118.	1.3	36
3	Quasi-ideal cascades with an additional flow for separation of multicomponent isotope mixtures. Theoretical Foundations of Chemical Engineering, 2006, 40, 5-13.	0.2	32
4	New approach to optimize Q-cascades. Chemical Engineering Science, 2011, 66, 393-396.	1.9	31
5	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.	0.1	24
6	Circulation control in magnetohydrodynamic rotating flows. Journal of Fluid Mechanics, 2017, 829, 328-344.	1.4	20
7	Use of the Q-cascade in calculation and optimization of multi-isotope separation. Chemical Engineering Science, 2011, 66, 2997-3002.	1.9	18
8	The Q-Cascade Explanation. Separation Science and Technology, 2012, 47, 1591-1595.	1.3	18
9	On a Criterion Efficiency for Multi-Isotope Mixtures Separation. Separation Science and Technology, 1999, 34, 343-357.	1.3	15
10	Influence of feed flow profile of cascade stages on the mass transfer of intermediate components. Theoretical Foundations of Chemical Engineering, 2010, 44, 888-896.	0.2	15
11	Verification of software codes for simulation of unsteady flows in a gas centrifuge. Computational Mathematics and Mathematical Physics, 2013, 53, 789-797.	0.2	15
12	The concept of a plasma centrifuge with a high frequency rotating magnetic field and axial circulation. Physica Scripta, 2017, 92, 075601.	1.2	14
13	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.	0.2	13
14	A numerical method of cascade analysis and design for multi-component isotope separation. Chemical Engineering Research and Design, 2014, 92, 2649-2658.	2.7	13
15	Cascade design for isotopically modified molybdenum as an alternative to zirconium alloys. Chemical Engineering Research and Design, 2017, 128, 257-264.	2.7	13
16	The optimal flow structure in a gas centrifuge for separating uranium isotopes. Soviet Atomic Energy, 1991, 70, 36-42.	0.1	12
17	Ideal and Optimum Cascades. Separation Science and Technology, 2008, 43, 3377-3392.	1.3	12
18	On a Formula to Evaluate the Separative Power of Long Gas Centrifuges. Separation Science and Technology, 2014, 49, 329-334.	1.3	12

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19	Isotopically modified molybdenum for safe nuclear power. Theoretical Foundations of Chemical Engineering, 2016, 50, 1049-1057.	0.2	12
20	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.	0.2	10
21	Optimization of cascades with variable overall separation factors by various efficiency criteria. Journal of Physics: Conference Series, 2018, 1099, 012009.	0.3	10
22	Numerical investigation of the separation of sulfur isotopes in a single gas centrifuge. Atomic Energy, 1994, 76, 454-458.	0.1	9
23	Further optimization of Q-cascades. Chemical Engineering Research and Design, 2015, 100, 509-517.	2.7	9
24	Separation Potential for Multicomponent Mixtures: State-of-the Art of the Problem. Journal of Engineering Physics and Thermophysics, 2017, 90, 251-257.	0.2	9
25	Efficiency criteria for optimization of separation cascades for uranium enrichment. Nuclear Engineering and Technology, 2018, 50, 126-131.	1.1	9
26	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
27	SEPARATION OF MULTICOMPONENT ISOTOPE MIXTURES BY GAS CENTRIFUGE. Separation Science and Technology, 2001, 36, 1697-1735.	1.3	7
28	On the theory of countercurrent flow in a rotating viscous heat-conducting gas. Computational Mathematics and Mathematical Physics, 2011, 51, 208-221.	0.2	7
29	A generalization of the virtual components concept for numerical simulation of multi-component isotope separation in cascades. Chemical Engineering Science, 2014, 120, 105-111.	1.9	7
30	Special features of the enrichment of components with intermediate mass in a quasi-ideal cascade. Atomic Energy, 2006, 100, 53-59.	0.1	6
31	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.	0.1	6
32	Depleted zinc: Properties, application, production. Applied Radiation and Isotopes, 2009, 67, 1167-1172.	0.7	6
33	Plasma centrifuge with axial circulation for calcium isotope separation. Physics of Plasmas, 2018, 25, 113503.	0.7	6
34	Plasma Centrifuge With Crossed E Ã— B Fields and Thermally Driven Countercurrent Flow. IEEE Transactions on Plasma Science, 2020, 48, 3472-3478.	0.6	6
35	Application of stable isotopes in Russian Federation. Journal of Radioanalytical and Nuclear Chemistry, 1996, 205, 181-184.	0.7	5
36	Calculational study of the enrichment of cadmium isotopes in gas centrifuges. Theoretical Foundations of Chemical Engineering, 2007, 41, 851-858.	0.2	5

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37	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.	0.1	5
38	Application Limits of the Classical Concepts â€œSeparation Potentialâ€•and â€œSeparation Powerâ€• Atomic Energy, 2013, 114, 412-420.	0.1	5
39	Isotopically Selective Mass Transfer in the Q-Cascade with Losses of Working Substance. Separation Science and Technology, 2013, 48, 15-21.	1.3	5
40	Assessment of parameters of gas centrifuge and separation cascade basing on integral characteristics of separation plant. Nuclear Engineering and Design, 2013, 265, 1066-1070.	0.8	5
41	Enhancing the performance of Q-cascade for separating intermediate components. Journal of Physics: Conference Series, 2016, 751, 012004.	0.3	5
42	Maximizing separation performance of q-cascades for multicomponent isotope separation. Separation Science and Technology, 2018, 53, 97-109.	1.3	5
43	Classification of model cascades for separation of multicomponent isotope mixtures. Separation Science and Technology, 2021, 56, 1060-1070.	1.3	5
44	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.	0.2	4
45	Comparison of the Circulation Efficiency in gas Centrifuges with Different Geometric and Speed Characteristics for Uranium Enrichment. Atomic Energy, 2014, 116, 363-371.	0.1	4
46	Magnetohydrodynamic Phenomena and Heat Transfer Near a Rotating Disk. Journal of Engineering Physics and Thermophysics, 2015, 88, 1513-1521.	0.2	4
47	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.	0.3	4
48	Numerical modeling and optimization of the Iguassu gas centrifuge. AIP Conference Proceedings, 2017, , .	0.3	4
49	Circulation Plasma Centrifuge with Product Flow. Technical Physics, 2018, 63, 768-771.	0.2	4
50	Magnetohydrodynamics and Heat Transfer in Rotating Flows. Journal of Engineering Physics and Thermophysics, 2019, 92, 169-175.	0.2	4
51	Numerical investigation of viscous gas secondary flows in a rotating cylinder with sources and sinks. Fluid Dynamics, 1990, 24, 520-524.	0.2	3
52	Flow and separation in a gas centrifuge with beams-type circulation. Soviet Atomic Energy, 1992, 72, 39-42.	0.1	3
53	The computer simulation of 3d gas dynamics in a gas centrifuge. Journal of Physics: Conference Series, 2016, 751, 012017.	0.3	3
54	The non-isothermal BÃ¶dewadt problem applied to an advanced plasma centrifuge. Journal of Applied Physics, 2021, 130, .	1.1	3

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55	Boundary layer on a disk rotating in a uniform axial flow with suction. Fluid Dynamics, 1986, 20, 647-651.	0.2	2
56	Numerical modelling of the flow and isotope separation in centrifuge Iguasu for different lengths of the rotor. AIP Conference Proceedings, 2016, , .	0.3	2
57	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.	0.2	2
58	Plasma centrifuge for isotope separation with axial circulation caused by a traveling magnetic field. Journal of Physics: Conference Series, 2018, 1099, 012011.	0.3	2
59	Isotope separation of low boiling-point substances by plasma centrifuge with circulation. Separation Science and Technology, 2020, 55, 1829-1838.	1.3	2
60	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.	0.1	1
61	Mechanical and thermal excitation of a flow of viscous gas in a rotating cylinder. Fluid Dynamics, 1988, 22, 513-517.	0.2	1
62	Investigation of supersonic rarefied gas flow in a cylindrical gap. Fluid Dynamics, 1989, 24, 484-487.	0.2	1
63	Circulating rarefied gas flow in a rotating cylinder with a stationary upper end face. Fluid Dynamics, 1990, 25, 492-494.	0.2	1
64	Calcium Isotope Separation in a Hot-Wall Plasma Centrifuge. Technical Physics Letters, 2018, 44, 1195-1197.	0.2	1
65	On the scoop heating effect of a gas centrifuge in numerical simulation. Journal of Physics: Conference Series, 2018, 1099, 012012.	0.3	1
66	Objective function at optimization of separation cascades. AIP Conference Proceedings, 2019, , .	0.3	1
67	Calculation of a laminar boundary layer on a rotating porous disk. Journal of Engineering Physics, 1985, 49, 1498-1502.	0.0	0
68	Optimum feed coordinate in a column separator. Journal of Engineering Physics, 1988, 55, 1044-1047.	0.0	0
69	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
70	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.	0.1	0
71	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.	0.2	0
72	?Paradoxical? circulating rarefied gas flow in a short rotating cylinder with a fixed end face. Fluid Dynamics, 1992, 27, 148-150.	0.2	0

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73	Effect of Bellows on the Separation of Uranium Isotopes in a Supercritical Gas Centrifuge. Atomic Energy, 2014, 117, 106-110.	0.1	0
74	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.	0.3	0
75	Dependence of optimal separative power of the â€œhigh-speedâ€•Iguasu centrifuge on pressure of working gas. Journal of Physics: Conference Series, 2016, 751, 012008.	0.3	0
76	Two optimal working regimes of the â€•longâ€•Iguasu gas centrifuge. Journal of Physics: Conference Series, 2016, 751, 012009.	0.3	0
77	Three-dimensional rotational MHD flows in bounded volumes. Fluid Dynamics, 2016, 51, 620-628.	0.2	0
78	A homotopy algorithm to solve the problems of flows under strong rotation. Journal of Physics: Conference Series, 2018, 1099, 012010.	0.3	0
79	Three-Dimensional Flows in a Rotating Cylinder in the Presence of Turbulent Boundary Layers on End Disks. Fluid Dynamics, 2019, 54, 457-465.	0.2	0
80	Numerical study on coupling mode of mechanical and thermal drive. Journal of Physics: Conference Series, 2020, 1696, 012002.	0.3	0
81	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.	0.3	0
82	Peculiar properties of transient processes in cascades with additional product flow. Journal of Physics: Conference Series, 2020, 1696, 012008.	0.3	0
83	Application of the Dorodnitsyn Transformation for Analysis of Heat and Mass Transfer in Rotating Flows. Fluid Dynamics, 2021, 56, 1038-1048.	0.2	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, , .	0.2	0