Valery V Belousov

List of Publications by Year
in descending order

63 papers	780 citations	471509 17 h-index	642732 23 g-index
63 all docs	63 docs citations	63 times ranked	223 citing authors

#	Article	IF	Citations
1	A coreâ€shell structured diffusionâ€bubbling membrane for efficient oxygen separation: Formation and transport properties. Journal of the American Ceramic Society, 2022, 105, 4532-4541.	3.8	3
2	Oxygen-Selective Diffusion-Bubbling Membranes with Coreâ€“Shell Structure: Bubble Dynamics and Unsteady Effects. Langmuir, 2021, 37, 8370-8381.	3.5	5
3	Bubble nucleation in coreâ€“shell structured molten oxide-based membranes with combined diffusion-bubbling oxygen mass transfer: experiment and theory. Physical Chemistry Chemical Physics, 2021, 23, 24029-24038.	2.8	5
4	Effect of Bassetâ€™s hereditary force on bubble dynamics in liquid oxide-based diffusion-bubbling membranes. Physics of Fluids, 2020, 32, .	4.0	6
5	Perspectiveâ€”Oxygen Separation Technology Based on Liquid-Oxide Electrochemical Membranes. Journal of the Electrochemical Society, 2020, 167, 103501.	2.9	6
6	Innovative MIEC-Redox Oxygen Separation Membranes with Combined Diffusion-Bubbling Mass Transfer: A Brief Review. Journal of the Electrochemical Society, 2019, 166, H573-H579.	2.9	10
7	Functionally Graded IT-MOFC Electrolytes Based on Highly Conductive Î´-Bi2O3â€“0.2 wt % B2O3 Composite with Molten Grain Boundaries. ACS Applied Energy Materials, 2019, 2, 6860-6865.	5.1	10
8	Accelerated Oxygen Mass Transfer in Copper and Vanadium Oxide-Based MIEC-Redox Membrane. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 857-865.	2.1	6
9	Features of Oxygen Transfer in Cu₂V₂O₇Ââ€“Â20Âwt%ÂCuV₂O₆ Molten Oxide Membrane. Journal of the Electrochemical Society, 2018, 165, H861-H865.	2.9	3
10	Highly Oxygen-Permeable NiV2O6â€“25 wt % V2O5 Molten-Oxide Membrane Material. Inorganic Materials, 2018, 54, 1055-1061.	0.8	4
11	An Oxygen-Permeable Bilayer MIEC-Redox Membrane Concept. ACS Applied Materials & Interfaces, 2018, 10, 21794-21798.	8.0	15
12	Next-Generation Electrochemical Energy Materials for Intermediate Temperature Molten Oxide Fuel Cells and Ion Transport Molten Oxide Membranes. Accounts of Chemical Research, 2017, 50, 273-280.	15.6	23
13	A highly conductive electrolyte for molten oxide fuel cells. Chemical Communications, 2017, 53, 565-568.	4.1	16
14	Features of Molten Oxide Fuel Cells and Molten Oxide Membranes for Electrochemical Energy Conversion and Oxygen Separation. ECS Transactions, 2017, 80, 191-198.	0.5	1
15	Oxygen Ion Transport in Molten Oxide Membranes for Air Separation and Energy Conversion. Journal of the Electrochemical Society, 2017, 164, H5353-H5356.	2.9	15
16	Innovative oxide materials for electrochemical energy conversion and oxygen separation. Russian Chemical Reviews, 2017, 86, 934-950.	6.5	13
17	New Generation Molten Oxide Energy Materials R&D. Minerals, Metals and Materials Series, 2017, , 637-650.	0.4	0
18	Features of Molten Oxide Fuel Cells and Molten Oxide Membranes for Electrochemical Energy Conversion and Oxygen Separation. ECS Meeting Abstracts, 2017, , .	0.0	0

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19	A Novel Molten Oxide Fuel Cell Concept. Fuel Cells, 2016, 16, 401-403.	2.4	17
20	Electrical and mass transport processes in molten oxide membranes. Ionics, 2016, 22, 451-469.	2.4	17
21	Novel Molten Oxide Membrane for Ultrahigh Purity Oxygen Separation from Air. ACS Applied Materials & Interfaces, 2016, 8, 22324-22329.	8.0	26
22	Modeling oxygen Ion transport of molten oxide membranes based on V2O5. Ionics, 2016, 22, 369-376.	2.4	17
23	Oxygen Transport in Melts Based on V2O5. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 749-753.	2.1	5
24	Mechanism of oxygen ion transfer in oxide melts based on V2O5. Russian Journal of Physical Chemistry A, 2016, 90, 54-59.	0.6	4
25	Oxygen Permeation of Partly Molten Slags. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 4257-4267.	2.2	8
26	Oxygen-permeable membrane materials based on solid or liquid Bi2O3. MRS Communications, 2013, 3, 225-233.	1.8	15
27	High-temperature oxidation of copper. Russian Chemical Reviews, 2013, 82, 273-288.	6.5	23
28	Transport properties of ZrV2O7-V2O5 composites with liquid-channel grain boundary structure. Russian Journal of Electrochemistry, 2013, 49, 878-882.	0.9	15
29	Nanoscale ceria for new functional materials. Journal of Physics: Conference Series, 2012, 345, 012022.	0.4	2
30	Accelerated mass transfer involving the liquid phase in solids. Russian Chemical Reviews, 2012, 81, 44-64.	6.5	32
31	Oxygen-permeable NiO/54Âwt% Î´-Bi2O3 composite membrane. Ionics, 2012, 18, 787-790.	2.4	9
32	Catastrophic Oxidation of Copper: A Brief Review. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 3715-3723.	2.2	13
33	Oxygen-permeable In2O3â€"55wt.% Î´-Bi2O3 composite membrane. Electrochemistry Communications, 2012, 20, 60-62.	4.7	16
34	Solid/melt ZnOâ€"Bi2O3 composites as ion transport membranes for oxygen separation from air. Materials Letters, 2012, 67, 139-141.	2.6	20
35	Accelerated corrosion of MoO3-deposited copper. Corrosion Science, 2011, 53, 3150-3155.	6.6	10
36	Accelerated Oxidation of V2O5-Deposited Copper. Oxidation of Metals, 2011, 76, 359-366.	2.1	9

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37	The Oxygen Permeation of Solidâˆ•Melt Composite BiVO4â€‰â€“â€‰10 wt % V2O5 Membrane. Journal of the Electrochemical Society, 2011, 158, B601.	2.9	26
38	Electrochemical mechanism of hot corrosion of Bi2O3-deposited copper. Corrosion Science, 2010, 52, 68-71.	6.6	15
39	Conductivity of Bi2O3-NiO composites. Russian Journal of Electrochemistry, 2009, 45, 568-569.	0.9	3
40	Conductivity of CaF2-MgO composites. Russian Journal of Electrochemistry, 2009, 45, 570-572.	0.9	1
41	Wetting and conductivity of BiVO4-V2O5 ceramic composites. Russian Journal of Electrochemistry, 2009, 45, 573-575.	0.9	4
42	The â€œcatastrophicâ€•oxidation of metals. Russian Journal of Physical Chemistry A, 2008, 82, 2243-2249.	0.6	12
43	High-temperature solid/melt nanocomposites. JETP Letters, 2008, 88, 259-260.	1.4	12
44	Transport Properties of BiVO[sub 4]â€“V[sub 2]O[sub 5] Liquid-Channel Grain-Boundary Structures. Journal of the Electrochemical Society, 2008, 155, F241.	2.9	35
45	Surface ionics: A brief review. Journal of the European Ceramic Society, 2007, 27, 3459-3467.	5.7	32
46	Ion transport in materials with a developed surface. Russian Journal of Physical Chemistry A, 2007, 81, 441-450.	0.6	2
47	Mechanisms of Accelerated Oxidation of Copper in the Presence of Molten Oxides. Oxidation of Metals, 2007, 67, 235-250.	2.1	19
48	Grain boundary wetting in ceramic cuprates. Journal of Materials Science, 2005, 40, 2361-2365.	3.7	21
49	Microstructure and Conduction of Composites Bi2CuO4-Bi2O3 Near the Eutectic Melting Point. Russian Journal of Electrochemistry, 2005, 41, 522-526.	0.9	5
50	Wetting of Grain Boundaries in Ceramic Materials. Colloid Journal, 2004, 66, 121-127.	1.3	15
51	Transport properties of Bi2CuO4â€“Bi2O3 ceramic composites. Solid State Ionics, 2004, 166, 207-212.	2.7	19
52	Microstructure evolution and conductivity of BiCuO?BiO composites nearby the eutectic point. Solid State Ionics, 2004, 173, 135-139.	2.7	11
53	Electrical Conductivity of Bi2CuO4â€“Bi2O3 Ceramic Composites. Doklady Chemistry, 2003, 392, 229-232.	0.9	6
54	Wetting of Grain Boundaries in Cuprate Ceramics. Inorganic Materials, 2003, 39, 82-89.	0.8	13

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55	Surface Energy of Bismuth Cuprate. Journal of Superconductivity and Novel Magnetism, 2002, 15, 207-210.	0.5	9
56	Effect of Negative Photoconductivity in Pb1?xGexTe Alloys Doped with Gallium. Physica Status Solidi (B): Basic Research, 2000, 221, 549-552.	1.5	2
57	Gallium-induced defect states in Pb1â^'xGexTe alloys. Journal of Crystal Growth, 2000, 210, 292-295.	1.5	16
58	Gallium-induced deep level in Pb1â^'x GexTe alloys. Semiconductors, 2000, 34, 894-896.	0.5	2
59	Rapid Nondiffusional Penetration of Oxide Melts along Grain Boundaries of Oxide Ceramics. Journal of the American Ceramic Society, 1999, 82, 1342-1344.	3.8	11
60	Catastrophic oxidation of metals. Russian Chemical Reviews, 1998, 67, 563-571.	6.5	21
61	Liquid-Channel Grain-Boundary Structures. Journal of the American Ceramic Society, 1996, 79, 1703-1706.	3.8	34
62	The kinetics and mechanism of catastrophic oxidation of metals. Oxidation of Metals, 1994, 42, 511-528.	2.1	25
63	Kinetics and mechanism of high-temperature oxidation of copper covered by bismuth thin films. Oxidation of Metals, 1992, 38, 289-298.	2.1	10