Michael I Ojovan

List of Publications by Year
in descending order

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103 papers	2,126 citations	236925 25 h-index	265206 42 g-index
116 all docs	116 docs citations	116 times ranked	1340 citing authors

#	Article	IF	Citations
1	On Structural Rearrangements during the Vitrification of Molten Copper. Materials, 2022, 15, 1313.	2.9	12
2	Multiple Melting Temperatures in Glass-Forming Melts. Sustainability, 2022, 14, 2351.	3.2	6
3	Challenges in the Long-Term Behaviour of Highly Radioactive Materials. Sustainability, 2022, 14, 2445.	3.2	5
4	Innovative and conventional cementitious systems in nuclear industryâ€"Safety aspect. , 2021, , 49-87.		1
5	Considerations in construction of nuclear cements: Materials, technologies, and management systems. , 2021, , 271-295.		0
6	Terms and glossary relevant to nuclear cementitious systems. , 2021, , 629-646.		0
7	Age management and maintenance of cementitious SSCâ€™s during operation phase. , 2021, , 385-405.		0
8	Techniques to test cementitious systems through their life cycles. , 2021, , 407-430.		1
9	Behavior of cementitious SSCâ€™s in mitigating accidents. , 2021, , 233-267.		0
10	Introduction to the nuclear industry sustainability. , 2021, , 3-47.		2
11	Sustainability of cementitious structures, systems, and components (SSCâ€™s): Long-term environmental stressors. , 2021, , 181-232.		2
12	Life cycle of nuclear cementitious structures, systems, and components. , 2021, , 89-121.		0
13	Long-term irradiation effects in cementitious systems. , 2021, , 161-180.		1
14	Undercooled phase behind the glass phase with superheated medium-range order above glass transition temperature. Physica B: Condensed Matter, 2021, 602, 412542.	2.7	10
15	The Modified Random Network (MRN) Model within the Configuron Percolation Theory (CPT) of Glass Transition. Ceramics, 2021, 4, 121-134.	2.6	17
16	Glass Crystalline Materials as Advanced Nuclear Wasteforms. Sustainability, 2021, 13, 4117.	3.2	29
17	Building and Breaking Bonds by Homogenous Nucleation in Glass-Forming Melts Leading to Transitions in Three Liquid States. Materials, 2021, 14, 2287.	2.9	12
18	Dewetting temperatures of prefrozen and grafted layers in solid ultrathin films viewed as melt-memory effects. Physica B: Condensed Matter, 2021, 611, 412796.	2.7	9

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19	IAEA-Assisted Treatment of Liquid Radioactive Waste at the Saakadze Site in Georgia. Processes, 2021, 9, 1679.	2.8	3
20	On Structural Rearrangements Near the Glass Transition Temperature in Amorphous Silica. Materials, 2021, 14, 5235.	2.9	22
21	Problems and perspectives of borehole disposal of radioactive waste. Progress in Nuclear Energy, 2021, 139, 103867.	2.9	16
22	Comments about a recent publication entitled â€œImproving glass forming ability of off-eutectic metallic glass formers by manipulating primary crystallization reactionsâ€• Scripta Materialia, 2021, 205, 114039.	5.2	3
23	Hydration process: Kinetics and thermodynamics. , 2021, , 125-160.		0
24	Correlation between chemical composition and 90Sr concentrations in groundwater of the Chornobyl NPP industrial site. Journal of Environmental Radioactivity, 2021, 240, 106756.	1.7	1
25	Prediction of Second Melting Temperatures Already Observed in Pure Elements by Molecular Dynamics Simulations. Materials, 2021, 14, 6509.	2.9	9
26	Toward Sustainable Cementitious Radioactive Waste Forms: Immobilization of Problematic Operational Wastes. Sustainability, 2021, 13, 11992.	3.2	17
27	Glass transition criterion and plastic deformation of glass. Physica B: Condensed Matter, 2020, 582, 411914.	2.7	19
28	The Influence of Radiation on Confinement Properties of Nuclear Waste Glasses. Science and Technology of Nuclear Installations, 2020, 2020, 1-14.	0.8	24
29	Surface Alteration of Borosilicate and Phosphate Nuclear Waste Glasses by Hydration and Irradiation. Challenges, 2020, 11, 14.	1.7	6
30	On Viscous Flow in Glass-Forming Organic Liquids. Molecules, 2020, 25, 4029.	3.8	8
31	Effect of Gamma Irradiation on Structural Features and Dissolution of Nuclear Waste Naâ€“Alâ€“P Glasses in Water. Sustainability, 2020, 12, 4137.	3.2	7
32	Revealing Structural Changes at Glass Transition via Radial Distribution Functions. Journal of Physical Chemistry B, 2020, 124, 3186-3194.	2.6	41
33	On Alteration Rate Renewal Stage of Nuclear Waste Glass Corrosion. MRS Advances, 2020, 5, 111-120.	0.9	15
34	Evolution of cations speciation during the initial leaching stage of alkali-borosilicate-glasses. MRS Advances, 2020, 5, 185-193.	0.9	5
35	Advanced Vitreous Wasteforms for Radioactive Salt Cake Waste Immobilisation. MRS Advances, 2020, 5, 121-129.	0.9	3
36	Ceramic Mineral Waste-Forms for Nuclear Waste Immobilization. Materials, 2019, 12, 2638.	2.9	113

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37	An Assessment of Initial Leaching Characteristics of Alkali-Borosilicate Glasses for Nuclear Waste Immobilization. Materials, 2019, 12, 1462.	2.9	29
38	Non-Power Use of Nuclear Energy. , 2019, , 71-79.		0
39	Long-Lived Waste Radionuclides. , 2019, , 155-166.		0
40	Nuclear Waste Processing Schemes. , 2019, , 167-190.		1
41	Immobilisation of Radioactive Waste in Cement. , 2019, , 271-303.		3
42	Immobilisation of Radioactive Wastes in Glass. , 2019, , 319-368.		6
43	Ceramics and Novel Technologies. , 2019, , 369-395.		1
44	Performance of Wasteform Materials. , 2019, , 433-461.		3
45	Relaxation aspects of the liquidâ€“glass transition. Physics-Uspekhi, 2019, 62, 111-130.	2.2	30
46	Power Utilisation of Nuclear Energy. , 2019, , 57-70.		0
47	On Selection of Matrix (Wasteform) Material for Higher Activity Nuclear Waste Immobilization (Review). Russian Journal of Inorganic Chemistry, 2019, 64, 1611-1624.	1.3	30
48	The viscosity of Bi2O3â€“B2O3â€“SiO2 glasses and melts. Glass Technology: European Journal of Glass Science and Technology Part A, 2019, 60, 105-110.	0.2	3
49	Radiation-induced microcrystal shape change as a mechanism of wasteform degradation. Journal of Nuclear Materials, 2018, 501, 162-171.	2.7	15
50	Advances in conditioning of low- and intermediate-level nuclear waste. MRS Advances, 2018, 3, 983-990.	0.9	3
51	Updating irradiated graphite disposal: Project â€˜GRAPAâ€™ and the international decommissioning network. Journal of Environmental Radioactivity, 2017, 171, 34-40.	1.7	43
52	Destruction of Micro-crystal Containing Wasteforms by Charge-induced Crystal Shape Change on Self-irradiation. MRS Advances, 2017, 2, 621-626.	0.9	2
53	Modelling aqueous corrosion of nuclear waste phosphate glass. Journal of Nuclear Materials, 2017, 484, 357-366.	2.7	33
54	On relaxation nature of glass transition in amorphous materials. Physica B: Condensed Matter, 2017, 523, 96-113.	2.7	37

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55	About U-shaped Glass Corrosion Rate/pH Curves for Vitreous Nuclear Wasteforms. Innovations in Corrosion and Materials Science, 2017, 7, 30-37.	0.2	3
56	Processing of Irradiated Graphite: The Outcomes of an IAEA Coordinated Research Project. MRS Advances, 2016, 1, 4117-4122.	0.9	4
57	Vitreous Materials for Nuclear Waste Immobilisation and IAEA Support Activities. MRS Advances, 2016, 1, 4201-4206.	0.9	6
58	Mass spectrometric evidencing on modified random network microstructure and medium range order in silicate glasses. Journal of Non-Crystalline Solids, 2016, 434, 71-78.	3.1	18
59	Recent Trends in the Evaluation of Cementitious Material in Radioactive Waste Disposal. , 2016, , 401-448.		9
60	MoO3 incorporation in alkaline earth aluminosilicate glasses. Materials Research Society Symposia Proceedings, 2015, 1744, 67-72.	0.1	2
61	About U(t) form of pH-dependence of glass corrosion rates at zero surface to volume ratio. Materials Research Society Symposia Proceedings, 2015, 1744, 153-161.	0.1	2
62	MoO3 incorporation in magnesium aluminosilicate glasses. Journal of Nuclear Materials, 2015, 458, 335-342.	2.7	23
63	Heuristic Paradoxes of S.P. Kapitza Theoretical Demography. Evropejskij IssledovatelÊ¹, 2015, 92, 237-248.	0.1	4
64	About activation energy of viscous flow of glasses and melts. Materials Research Society Symposia Proceedings, 2015, 1757, 7.	0.1	3
65	Leaching Tests and Modelling of Cementitious Wasteforms Corrosion. Innovations in Corrosion and Materials Science, 2015, 4, 90-95.	0.2	7
66	Treatment of Irradiated Graphite to Meet Acceptance Criteria for Waste Disposal: Problem and Solutions. Materials Research Society Symposia Proceedings, 2014, 1665, 3-12.	0.1	7
67	Thermodynamic Parameters of Bonds in Glassy Materials from Shear Viscosity Coefficient Data. International Journal of Applied Glass Science, 2014, 5, 22-25.	2.0	10
68	Ordering and structural changes at the glassâ€“liquid transition. Journal of Non-Crystalline Solids, 2013, 382, 79-86.	3.1	54
69	Revealing ordering and structural changes at glass transition. Materials Research Society Symposia Proceedings, 2013, 1520, 1.	0.1	5
70	Thermodynamic modeling and experimental tests of irradiated graphite molten salt decontamination. Materials Research Society Symposia Proceedings, 2013, 1518, 103-108.	0.1	3
71	Radioactive waste management and contaminated site clean-up. , 2013, , .		28
72	An overview of research activities on cementitious materials for radioactive waste management. Materials Research Society Symposia Proceedings, 2012, 1475, 253.	0.1	39

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73	Processing and Disposal of Radioactive Waste: Selection of Technical Solutions. Materials Research Society Symposia Proceedings, 2012, 1518, 203-209.	0.1	1
74	Rydberg Matter Clusters: Theory of Interaction and Sorption Properties. Journal of Cluster Science, 2012, 23, 35-46.	3.3	6
75	Acoustic emission on melting/solidification of natural granite simulating very deep waste disposal. Nuclear Engineering and Design, 2012, 248, 329-339.	1.7	11
76	Crystallisation of a simulated borosilicate high-level waste glass produced on a full-scale vitrification line. Journal of Non-Crystalline Solids, 2011, 357, 2989-3001.	3.1	51
77	Cementitious Materials for Radioactive Waste Management Within IAEA Coordinated Research Project. , 2011, , .		1
78	Long-term field and laboratory leaching tests of cemented radioactive wastes. Journal of Hazardous Materials, 2011, 187, 296-302.	12.4	73
79	Glassy Wasteforms for Nuclear Waste Immobilization. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 837-851.	2.2	225
80	The synthesis of graphiteâ€“glass composites intended for the immobilisation of waste irradiated graphite. Journal of Nuclear Materials, 2011, 413, 47-52.	2.7	14
81	Nano-scale quasi-melting of alkali-borosilicate glasses under electron irradiation. Journal of Nuclear Materials, 2010, 396, 264-271.	2.7	43
82	Connectivity and glass transition in disordered oxide systems. Journal of Non-Crystalline Solids, 2010, 356, 2534-2540.	3.1	56
83	On radiation-induced fluidization (quasi-melting) of silicate glasses. Materials Research Society Symposia Proceedings, 2009, 1193, 393.	0.1	6
84	The Behaviours of Cementitious Materials in Long Term Storage and Disposal: An Overview of Results of the IAEA Coordinated Research Project. Materials Research Society Symposia Proceedings, 2009, 1193, 85.	0.1	18
85	Thermodynamic Simulation and Experimental Study of Irradiated Reactor Graphite Waste Processing with REE Oxides. Materials Research Society Symposia Proceedings, 2008, 1107, 1.	0.1	4
86	Glass Composite Materials for Nuclear and Hazardous Waste Immobilisation. Materials Research Society Symposia Proceedings, 2008, 1107, 1.	0.1	18
87	Configurons: Thermodynamic Parameters and Symmetry Changes at Glass Transition. Entropy, 2008, 10, 334-364.	2.2	74
88	Viscosity and Glass Transition in Amorphous Oxides. Advances in Condensed Matter Physics, 2008, 2008, 1-23.	1.1	106
89	Thermodynamic parameters of bonds in glassy materials from viscosityâ€“temperature relationships. Journal of Physics Condensed Matter, 2007, 19, 415107.	1.8	74
90	Topologically disordered systems at the glass transition. Journal of Physics Condensed Matter, 2006, 18, 11507-11520.	1.8	54

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91	The ion exchange phase in corrosion of nuclear waste glasses. Journal of Nuclear Materials, 2006, 358, 57-68.	2.7	91
92	Topological characteristics of bonds in SiO2 and GeO2 oxide systems upon a glass-liquid transition. Journal of Experimental and Theoretical Physics, 2006, 103, 819-829.	0.9	39
93	<title>Rydberg matter: properties and decay</title>. , 2006, 6181, 36.		14
94	Frequency Characteristics of Acoustic Emission Signals from Cementitious Wasteforms with Encapsulated Al. Materials Research Society Symposia Proceedings, 2006, 985, 1.	0.1	0
95	Simulation of Self-Irradiation of High-Sodium Content Nuclear Waste Glasses. Materials Research Society Symposia Proceedings, 2006, 985, 1.	0.1	2
96	39-years Performance of Cemented Radioactive Waste in a Mound Type Repository. Materials Research Society Symposia Proceedings, 2006, 932, 1.	0.1	6
97	Corrosion of alkaliâ€“borosilicate waste glass K-26 in non-saturated conditions. Journal of Nuclear Materials, 2005, 340, 12-24.	2.7	52
98	Viscosity of network liquids within Doremus approach. Journal of Applied Physics, 2004, 95, 3803-3810.	2.5	49
99	Crystallisation Within Simulated High Level Waste Borosilicate Glass. Materials Research Society Symposia Proceedings, 2004, 824, 252.	0.1	5
100	Alkali ion exchange in Î³-irradiated glasses. Journal of Nuclear Materials, 2004, 335, 425-432.	2.7	42
101	Kinetics of alkali ion exchange of irradiated glasses. Materials Research Society Symposia Proceedings, 2003, 792, 233.	0.1	0
102	Secondary Phases on the Surface of Real Vitrified Radioactive Waste Disposed in a Loamy Soil. Materials Research Society Symposia Proceedings, 2003, 807, 712.	0.1	6
103	Cold Crucible Vitrification of NPP Operational Waste. Materials Research Society Symposia Proceedings, 2002, 757, II5.13.1.	0.1	5