Yuriy Plevachuk

List of Publications by Year
in descending order

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123 papers	1,578 citations	430874 18 h-index	361022 35 g-index
124 all docs	124 docs citations	124 times ranked	957 citing authors

#	Article	IF	Citations
1	Thermophysical Properties of the Liquid Gaâ€“Inâ€“Sn Eutectic Alloy. Journal of Chemical & Engineering Data, 2014, 59, 757-763.	1.9	223
2	Density, Viscosity, and Electrical Conductivity of Hypoeutectic Al-Cu Liquid Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 3040-3045.	2.2	77
3	Density and atomic volume in liquid Alâ€“Fe and Alâ€“Ni binary alloys. International Journal of Materials Research, 2007, 98, 107-111.	0.3	75
4	Electrophysical measurements for strongly aggressive liquid semiconductors. Measurement Science and Technology, 2001, 12, 23-26.	2.6	69
5	Surface tension and density of liquid Biâ€“Pb, Biâ€“Sn and Biâ€“Pbâ€“Sn eutectic alloys. Surface Science, 2011, 605, 1034-1042.	1.9	65
6	The surface tension of liquid aluminium-based alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 495, 14-18.	5.6	52
7	Experimental study of density, surface tension, and contact angle of Snâ€“Sb-based alloys for high temperature soldering. Journal of Materials Science, 2010, 45, 2051-2056.	3.7	52
8	Electronic properties and viscosity of liquid Pbâ€“Sn alloys. Journal of Alloys and Compounds, 2005, 394, 63-68.	5.5	51
9	Electrical conductivity, thermoelectric power and viscosity of liquid Sn-based alloys. Journal of Materials Science, 2006, 41, 4632-4635.	3.7	43
10	Thermophysical properties of the liquid Gaâ€“Snâ€“Zn eutectic alloy. Fluid Phase Equilibria, 2018, 465, 1-9.	2.5	37
11	Morphology and Shear Strength of Lead-Free Solder Joints with Sn3.0Ag0.5Cu Solder Paste Reinforced with Ceramic Nanoparticles. Journal of Electronic Materials, 2016, 45, 6143-6149.	2.2	35
12	Structure Sensitive Properties of Liquid Alâ€“Si Alloys. International Journal of Thermophysics, 2009, 30, 1400-1410.	2.1	32
13	Some physical data of the near eutectic liquid leadâ€“bismuth. Journal of Nuclear Materials, 2008, 373, 335-342.	2.7	30
14	A modified steady state apparatus for thermal conductivity measurements of liquid metals and semiconductors. Measurement Science and Technology, 2005, 16, 467-471.	2.6	27
15	Surface tension of liquid Alâ€“Cuâ€“Ag ternary alloys. Journal of Materials Science, 2010, 45, 5150-5157.	3.7	27
16	Thermophysical properties of liquid tinâ€“bismuth alloys. International Journal of Materials Research, 2010, 101, 839-844.	0.3	25
17	Investigation of Marangoni convection in monotectic melts by resistance measurements. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 361, 155-164.	5.6	22
18	The application of liquid metals in cooling systems: A study of the thermophysical properties of eutectic Ga-Sn-Zn with Al additions. International Journal of Heat and Mass Transfer, 2018, 126, 414-420.	4.8	21

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19	Viscosity of Biâ€“Zn liquid alloys. Journal of Non-Crystalline Solids, 2008, 354, 4415-4417.	3.1	20
20	Atomic structure and physical properties of liquid Pbâ€“Bi alloys. Journal of Physics Condensed Matter, 2004, 16, 6335-6341.	1.8	19
21	Nanocomposite SAC solders: morphology, electrical and mechanical properties of Snâ€“3.8Agâ€“0.7Cu solders by adding Co nanoparticles. Journal of Materials Science: Materials in Electronics, 2017, 28, 10965-10973.	2.2	19
22	Electrophysical and structure-sensitive properties of liquid Gaâ€“In alloys. International Journal of Materials Research, 2015, 106, 66-71.	0.3	18
23	Investigation of the miscibility gap region in liquid Gaâ€“Pb alloys. International Journal of Materials Research, 2003, 94, 1034-1039.	0.8	17
24	Microsegregation in liquid Pb-based eutectics. Journal of Non-Crystalline Solids, 2008, 354, 4443-4447.	3.1	17
25	The influence of silver content on structure and properties of Snâ€“Biâ€“Ag solder and Cu/solder/Cu joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 571, 184-192.	5.6	17
26	Physical properties of liquid NaFâ€“LiFâ€“LaF3 and NaFâ€“LiFâ€“NdF3 eutectic alloys. Journal of Nuclear Materials, 2013, 433, 329-333.	2.7	17
27	Viscosity of liquid Coâ€“Sn alloys: thermodynamic evaluation and experiment. Physics and Chemistry of Liquids, 2014, 52, 562-570.	1.2	17
28	Surface Properties of Liquid Al-Ni Alloys: Experiments Vs Theory. Microgravity Science and Technology, 2020, 32, 1049-1064.	1.4	15
29	Liquid-liquid equilibrium in immiscible In-Se alloys suffering metal-nonmetal transition. Journal of Phase Equilibria and Diffusion, 1996, 17, 414-417.	0.3	14
30	The viscosity of liquid cadmium telluride. Journal of Crystal Growth, 2000, 212, 385-390.	1.5	14
31	Interface between Snâ€“Sbâ€“Cu solder and copper substrate. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5955-5960.	5.6	14
32	Electronic properties of liquid Tl2Te, Tl2Se, Ag2Te, Cu2Te, and Cu2Se alloys. Semiconductors, 2002, 36, 1123-1127.	0.5	13
33	Structure rearrangement of the Cd1â^'Zn Te (0<x<0.1) melts. Journal of Alloys and Compounds, 2004, 371, 186-190.	5.5	13
34	Microstructure and Electro-Physical Properties of Sn-3.0Ag-0.5Cu Nanocomposite Solder Reinforced with Ni Nanoparticles in the Melting-Solidification Temperature Range. Journal of Phase Equilibria and Diffusion, 2017, 38, 217-222.	1.4	13
35	Hybrid solder joints: morphology and shear strength of Snâ€“3.0Agâ€“0.5Cu solder joints by adding ceramic nanoparticles through flux doping. Applied Nanoscience (Switzerland), 2020, 10, 4943-4949.	3.1	13
36	Structure and electrophysical properties of liquid Pb83Mg17 and Pb83Li17 eutectics. Journal of Nuclear Materials, 2008, 376, 371-374.	2.7	12

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37	Surface properties and wetting behavior of liquid Ag-Sb-Sn alloys. Journal of Mining and Metallurgy, Section B: Metallurgy, 2012, 48, 443-448.	0.8	12
38	Viscosity and Electrical Conductivity of the Liquid Sn-3.8Ag-0.7Cu Alloy with Minor Co Admixtures. Journal of Materials Engineering and Performance, 2016, 25, 4437-4443.	2.5	12
39	Experimental investigations of phase equilibrium in liquid immiscible Znî—¸Pb alloys. Journal of Molecular Liquids, 2003, 105, 215-219.	4.9	10
40	Viscosity and electrical conductivity of liquid Snâ€“Ti and Snâ€“Zr alloys. Journal of Materials Science, 2007, 42, 8618-8621.	3.7	10
41	Electrical conductivity and viscosity of liquid Snâ€“Sbâ€“Cu alloys. Journal of Materials Science: Materials in Electronics, 2011, 22, 631-638.	2.2	10
42	AlCoCrCuFeNi-Based High-Entropy Alloys: Correlation Between Molar Density and Enthalpy of Mixing in the Liquid State. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 6544-6552.	2.2	10
43	Electroconductivity and liquid-liquid equilibrium in the Pbï£¿Ga system. Physica Status Solidi A, 1995, 148, 123-128.	1.7	9
44	The thermophysical properties of eutectic Ga-Sn-Zn with In additions. Journal of Molecular Liquids, 2018, 271, 942-948.	4.9	9
45	Liquid Metals in High-Temperature Cooling Systems: The Effect of Bi Additions for the Physicochemical Properties of Eutectic Gaâ€“Snâ€“Zn. Journal of Chemical & Engineering Data, 2019, 64, 404-411.	1.9	9
46	Viscosity of liquid tellurium doped with 3D transition metals. Journal of Molecular Liquids, 2005, 120, 111-114.	4.9	8
47	Viscosity of liquid Inâ€“Seâ€“Tl alloys in the miscibility gap region. Journal of Alloys and Compounds, 2008, 452, 174-177.	5.5	8
48	Determination of Liquidus Temperature in Snâ€“Tiâ€“Zr Alloys by Viscosity, Electrical Conductivity and XRD Measurements. International Journal of Materials Research, 2009, 100, 689-694.	0.3	8
49	The density and the binary diffusion coefficients of silver-tin melts. Thermophysics and Aeromechanics, 2010, 17, 391-396.	0.5	8
50	Surface properties and wetting characteristics of liquid Agâ€“Biâ€“Sn alloys. Monatshefte FÃ¼r Chemie, 2012, 143, 1249-1254.	1.8	8
51	Concentration dependence of physical properties of liquid NaFâ€“LiFâ€“NdF3 alloys. Nuclear Engineering and Design, 2014, 270, 60-64.	1.7	8
52	Electrical conductivity measurements for immiscible Inâ€“Seâ€“Te alloys. Journal of Alloys and Compounds, 1999, 288, 151-154.	5.5	7
53	Electrical Conductivity of Liquid Sb and Bi Doped with 3d Transition Metals. Inorganic Materials, 2003, 39, 811-815.	0.8	7
54	The Enthalpies of Mixing of Liquid Ni-Sn-Zn Alloys. Journal of Phase Equilibria and Diffusion, 2014, 35, 359-368.	1.4	7

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55	Structure and physical properties of ternary NaFâ€“LiFâ€“LnF₃(Ln = La, Nd) systems of eutectic compositions. Physics and Chemistry of Liquids, 2016, 54, 717-726.	1.2	7
56	Nanocomposite Solders: an Influence of un-coated and Au-coated Carbon Nanotubes on Morphology of Cu / Sn-3.0Ag-0.5Cu / Cu Solder Joints. , 2019, , .		7
57	Liquid metals in cooling systems: Experimental design of thermophysical properties of eutectic Ga-Sn-Zn alloy with Pb additions. Journal of Molecular Liquids, 2019, 281, 542-548.	4.9	7
58	Nanocomposite SAC solders: the effect of adding CoPd nanoparticles on the morphology and the shear strength of the Snâ€“3.0Agâ€“0.5Cu/Cu solder joints. Applied Nanoscience (Switzerland), 2020, 10, 4603-4607.	3.1	7
59	The miscibility gap region and properties of liquid ternary alloys. Journal of Physics Condensed Matter, 1997, 9, 3343-3347.	1.8	6
60	The miscibility gap region in liquid ternary alloys. Journal of Non-Crystalline Solids, 1999, 250-252, 325-328.	3.1	6
61	Experimental studies of phase equilibria in high-temperature ternary immiscible metallic melts. Journal of Non-Crystalline Solids, 2007, 353, 3310-3313.	3.1	6
62	Nanocomposite SAC solders: the effect of heat treatment on the morphology of Snâ€“3.0Agâ€“0.5Cu/Cu solder joints reinforced with Ni and Niâ€“Sn nanoparticles. Applied Nanoscience (Switzerland), 2022, 12, 977-982.	3.1	6
63	Electronic properties and viscosity of liquid CdTe-based alloys. Journal of Physics Condensed Matter, 2002, 14, 5711-5718.	1.8	5
64	CdTe-Ge Melt Structure Rearrangement Study. Physica Status Solidi (B): Basic Research, 2002, 229, 165-169.	1.5	5
65	Liquidâ€“liquid phase equilibrium in ternary immiscible Inâ€“Tlâ€“Te melts. Journal of Molecular Liquids, 2006, 127, 33-36.	4.9	5
66	Melting-solidification process in Pb-Bi melts. Journal of Physics: Conference Series, 2007, 79, 012019.	0.4	5
67	Thermophysical properties and thermal simulation of Bridgman crystal growth process of Niâ€“Mnâ€“Ga magnetic shape memory alloys. International Journal of Heat and Mass Transfer, 2011, 54, 4167-4174.	4.8	5
68	Viscosity of liquid binary Pbâ€“Zn alloys in the miscibility gap region. Journal of Non-Crystalline Solids, 2014, 391, 12-16.	3.1	5
69	Transformation of an electron spectrum in liquid ternary semiconductors. Journal of Alloys and Compounds, 2000, 312, 25-29.	5.5	4
70	Toward Physical Modeling of Laser Welding: Thermophysics Revisited. International Journal of Thermophysics, 2009, 30, 555-571.	2.1	4
71	Determination of liquidus temperature in Ti-rich alloys of the Feâ€“Niâ€“Ti system obtained by DTA, electrical conductivity and XRD measurements. International Journal of Materials Research, 2011, 102, 248-256.	0.3	4
72	Structure parameters and structure sensitive properties of Sn0.739Pb0.261 melt. Thermophysics and Aeromechanics, 2011, 18, 123-128.	0.5	4

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73	Thermophysical properties of the liquid Pb84.1Au15.9 eutectic alloy. Journal of Nuclear Materials, 2013, 434, 291-295.	2.7	4
74	Electrical conductivity and thermoelectric power of liquid tellurium doped with 3d transition metals. Semiconductors, 2004, 38, 1365-1368.	0.5	3
75	Measurement of electrical conductivity of Pbâ€“Bi alloys in the meltingâ€“solidification region. Journal of Nuclear Materials, 2008, 376, 363-365.	2.7	3
76	Investigation of the critical region in monotectic systems by viscosity measurements. Journal of Physics: Conference Series, 2008, 98, 022007.	0.4	3
77	Viscosity of Sb-Sn melts. Inorganic Materials, 2010, 46, 833-835.	0.8	3
78	Structure and electric resistance of Snâ€“Cu(Ag) solders in the precrystallization temperature range. Materials Science, 2011, 46, 464-472.	0.9	3
79	Thermophysical Properties of Liquid Silver-Bismuth-Tin Alloys. Journal of Materials Engineering and Performance, 2012, 21, 585-589.	2.5	3
80	Liquid Coâ€“Sn alloys at high temperatures: structure and physical properties. Physics and Chemistry of Liquids, 2016, 54, 440-453.	1.2	3
81	Thermophysical structure-sensitive properties of Tinâ€“Zinc alloys. Journal of Materials Science: Materials in Electronics, 2017, 28, 750-759.	2.2	3
82	The influence of Li on the thermophysical properties of liquid Gaâ€“Snâ€“Zn eutectic alloys. Journal of Materials Science: Materials in Electronics, 2019, 30, 18970-18980.	2.2	3
83	Study of Nonequilibrium Solidification Region in Sn96.5Ag3Cu0.5 Alloys with Carbon Nanotube Admixtures by Electrical Resistivity Measurements. Journal of Phase Equilibria and Diffusion, 2019, 40, 86-92.	1.4	3
84	The Structural and Thermodynamic Analysis of Phase Formation Processes in Equiatomic AlCoCuFeNiCr High-Entropy Alloys. Journal of Materials Engineering and Performance, 2020, 29, 7321-7327.	2.5	3
85	Thermophysical properties of Nd-, Er-, YNi-alloys. International Journal of Materials Research, 2008, 99, 261-264.	0.3	3
86	The miscibility gap region and liquidâ€“liquid equilibrium in immiscible Inâ€“Tlâ€“Te alloys. Journal of Alloys and Compounds, 1998, 274, 206-208.	5.5	2
87	Experimental Investigations of Phase Equilibria in Binary Liquid Immiscible Alloys. International Journal of Thermophysics, 1999, 20, 343-351.	2.1	2
88	The influence of the ionic component of the electrical conductivity on the semiconductorâ€“metal transition in liquid Tlâ€“Se alloys. Journal of Alloys and Compounds, 2001, 327, 47-51.	5.5	2
89	Nonmetal-Metal Transition in Liquid Cu-Based Alloys. Zeitschrift Fur Physikalische Chemie, 2001, 215, 103-109.	2.8	2
90	Transport Properties and Viscosity of Liquid CdTe Doped with In, Ge, and Sn. Inorganic Materials, 2002, 38, 1109-1114.	0.8	2

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91	Electrophysical and structural-sensitive properties of liquid In2Te3 with 3d metal admixtures. Journal of Non-Crystalline Solids, 2007, 353, 3216-3219.	3.1	2
92	Structure and electrical properties of liquid Sn, Sn0.962Ag0.038, Sn0.987Cu0.013, and Sn0.949Ag0.038Cu0.013. Inorganic Materials, 2008, 44, 129-133.	0.8	2
93	Potential cooling agents for fast nuclear reactors: Sodium influence on the thermophysical properties of liquid Ga-Sn-Zn eutectic alloys. Journal of Molecular Liquids, 2019, 296, 112024.	4.9	2
94	CÑ‚Ñ€ÑƒÐºÑ‚ÑƒÑ€Ð½Ð¾-Ñ‡ÑƒÑ‚Ð»Ð¸Ð²Ñ– Ð²Ð»Ð°ÑÑ‚Ð¸Ð²Ð¾ÑÑ‚Ñ– Ð±Ñ–Ð½Ð°Ñ€Ð½Ð¸Ñ… Ð¿Ñ–Ð´ÑÐ¸ÑÑ‚ÐµÐ¼ Ð½Ð° Ð¾ÑÐ	0.2	2
95	Thermophysical properties of some liquid binary Mg-based alloys. Journal of Mining and Metallurgy, Section B: Metallurgy, 2017, 53, 279-284.	0.8	2
96	Miscibility gap and liquid-liquid equilibrium in the system In-Tl-Se. Journal of Phase Equilibria and Diffusion, 1999, 20, 404-406.	0.3	1
97	Dynamics of the pseudogap transformation in semiconducting melts during metallization. Journal of Physics Condensed Matter, 2001, 13, 9179-9185.	1.8	1
98	Electrophysical Properties of Mg-Pb Based Liquid Alloys and Their Application. , 2006, , 73-78.		1
99	Formation of atomic solution in liquid eutectic alloys. Journal of Non-Crystalline Solids, 2007, 353, 2982-2986.	3.1	1
100	Semiconductor-metal transition in semiconductor melts with 3d metal admixtures. Journal of Physics: Conference Series, 2008, 98, 062003.	0.4	1
101	Electrical conductivity and thermoelectric power of liquid Coâ€“Sn alloys. Physics and Chemistry of Liquids, 2015, 53, 200-206.	1.2	1
102	Lightweight magnesium nanocomposites: electrical conductivity of liquid magnesium doped by CoPd nanoparticles. Applied Nanoscience (Switzerland), 2019, 9, 1119-1125.	3.1	1
103	Structural-Phase State of Nanocrystalline Al-based High-Entropy Alloys with Transition Elements. , 2019, , .		1
104	Electrophysical properties of immiscible liquid conducting alloys. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1997, 94, 1811-1815.	0.2	1
105	Thermophysical properties of liquid ternary chalcogenides. High Temperatures - High Pressures, 2002, 34, 29-34.	0.3	1
106	Thermophysical properties of liquid ternary chalcogenides. Journal of Physical Studies, 2000, 4, 155-158.	0.5	1
107	Some thermophysical properties of the intermetallic Ti40Al60 alloy in the melting-solidification temperature range. International Journal of Materials Research, 2011, 102, 282-285.	0.3	1
108	Physical Properties of Liquid Eutectic Ionic Systems NaFâˆ’LaF3 and NaFâˆ’NdF3. Ukrainian Journal of Physics, 2014, 59, 769-774.	0.2	1

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109	The miscibility gap region in liquid metal-chalcogen alloys. Journal of Molecular Liquids, 2001, 93, 225-228.	4.9	0
110	Reverse metalâ€“non-metal transition in semiconducting melts. Journal of Non-Crystalline Solids, 2004, 336, 59-63.	3.1	0
111	The structural features of Cu1â^'xPbx liquid alloys. Journal of Molecular Liquids, 2005, 120, 99-102.	4.9	0
112	Electronic Properties and Viscosity of Liquid Pbâ€”Sn Alloys.. ChemInform, 2005, 36, no.	0.0	0
113	Electrical conductivity of liquid Sn-Ti-Zr alloys. Journal of Physics: Conference Series, 2008, 98, 062008.	0.4	0
114	Microsegregation in Ion-Electron Liquids: Molten Metals and Alloys. Springer Proceedings in Physics, 2018, , 111-132.	0.2	0
115	Electrical conductivity and thermopower of high-entropy AlCoCrCuFeNi liquid alloys. Journal of Physical Studies, 2021, 25, .	0.5	0
116	Electrophysical and structural-sensitive properties of liquid te doped by 3d transition metals. Journal of Physical Studies, 2004, 8, 245-251.	0.5	0
117	Viscosity, Conductivity, and Thermoelectric Power in Ionic and Ion-Electron Eutectic Liquid Systems. Ukrainian Journal of Physics, 2015, 60, 917-924.	0.2	0
118	Fukushima: the destruction mechanism of nuclear materials. Journal of Physical Studies, 2017, 21, .	0.5	0
119	Optical properties of thin crystalline films CuIn0.5Ga0.5Se2 obtained by laser deposition. Journal of Physical Studies, 2018, 22, .	0.5	0
120	Thermophysical properties of multicomponent model high-entropy melts. Journal of Physical Studies, 2020, 24, .	0.5	0
121	The liquid AlCu4TiMg alloy: thermophysical and thermodynamic properties. High Temperatures - High Pressures, 2020, 49, 61-73.	0.3	0
122	Influence of ni nanoparticles on electrical conductivity of Sn_{95.5}Ag_{3.8}Cu_{0.7}. Journal of Physical Studies, 2020, 24, .	0.5	0
123	Investigation of the miscibility gap region in liquid Gaâ€“Pb alloys. International Journal of Materials Research, 2022, 94, 1034-1039.	0.3	0