Jiri Orava

List of Publications by Year in descending order

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79 papers	2,037 citations	279487 23 h-index	264894 42 g-index
80 all docs	80 docs citations	80 times ranked	1880 citing authors

#	Article	IF	Citations
1	Liquid-to-liquid transition around the glass-transition temperature in a glass-forming metallic liquid. Acta Materialia, 2022, 225, 117588.	3.8	12
2	Contrast of color-changing metallic glasses reveals the glass properties beneath the surface. Journal of Alloys and Compounds, 2022, 901, 163674.	2.8	1
3	Kinetically facilitated liquid-liquid transition in a metallic liquid. Acta Materialia, 2022, 230, 117834.	3.8	10
4	Effect of high-temperature up-quenching on stabilizing off-eutectic metallic glasses. Physical Review B, 2021, 103, .	1.1	6
5	In situ correlation between metastable phase-transformation mechanism and kinetics in a metallic glass. Nature Communications, 2021, 12, 2839.	5.8	25
6	Regulated color-changing metallic glasses. Journal of Alloys and Compounds, 2021, 876, 160139.	2.8	6
7	Stimulation of shear-transformation zones in metallic glasses by cryogenic thermal cycling. Journal of Non-Crystalline Solids, 2020, 548, 120299.	1.5	17
8	Dynamic relaxations of a metallic glass studied on cooling. Journal of Alloys and Compounds, 2020, 846, 156426.	2.8	3
9	Rejuvenation through plastic deformation of a La-based metallic glass measured by fast-scanning calorimetry. Journal of Non-Crystalline Solids: X, 2020, 8, 100051.	0.5	6
10	Phase transformations in a Cuâ€“Zrâ€“Al metallic glass. Scripta Materialia, 2020, 183, 61-65.	2.6	19
11	Fast-current-heating devices to study in situ phase formation in metallic glasses by using high-energy synchrotron radiation. Review of Scientific Instruments, 2020, 91, 073901.	0.6	9
12	Fast-heating-induced formation of metallic-glass/crystal composites with enhanced plasticity. Thermochimica Acta, 2019, 677, 198-205.	1.2	22
13	Elemental re-distribution inside shear bands revealed by correlative atom-probe tomography and electron microscopy in a deformed metallic glass. Scripta Materialia, 2019, 168, 14-18.	2.6	21
14	The elastic-strain energy criterion of phase formation for complex concentrated alloys. Materialia, 2019, 5, 100222.	1.3	29
15	On cryothermal cycling as a method for inducing structural changes in metallic glasses. NPG Asia Materials, 2018, 10, 137-145.	3.8	68
16	Controlling Selective Doping and Energy Transfer between Transition Metal and Rare Earth Ions in Nanostructured Glassy Solids. Advanced Optical Materials, 2018, 6, 1701407.	3.6	64
17	Scalable In-Fiber Manufacture of Functional Composite Particles. ACS Nano, 2018, 12, 11130-11138.	7.3	12
18	Photoluminescence in pulsed-laser deposited GeGaSbS:Er films. Optical Materials, 2018, 85, 246-253.	1.7	1

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19	Chalcogenides for Phase-Change Memory. Handbook of Thermal Analysis and Calorimetry, 2018, 6, 685-734.	1.6	8
20	Correlating ultrafast calorimetry, viscosity, and structural measurements in liquid GeTe and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ge</mml:mi><mml:mn>15</mml:mn></mm Physical Review Materials, 2018, 2, .	0.9	13
21	Preferred location for conducting filament formation in thin-film nano-ionic electrolyte: study of microstructure by atom-probe tomography. Journal of Materials Science: Materials in Electronics, 2017, 28, 6846-6851.	1.1	3
22	In-situ study of athermal reversible photocrystallization in a chalcogenide glass. Journal of Applied Physics, 2017, 122, .	1.1	6
23	Classical-nucleation-theory analysis of priming in chalcogenide phase-change memory. Acta Materialia, 2017, 139, 226-235.	3.8	56
24	Viscosity of liquid Agâ€“Inâ€“Sbâ€“Te: Evidence of a fragile-to-strong crossover. Journal of Chemical Physics, 2016, 144, 194503.	1.2	39
25	Mesoscale engineering of photonic glass for tunable luminescence. NPG Asia Materials, 2016, 8, e318-e318.	3.8	72
26	Fast crystal growth in glass-forming liquids. Journal of Non-Crystalline Solids, 2016, 451, 94-100.	1.5	18
27	Reversible migration of silver on memorized pathways in Ag-Ge40S60 films. AIP Advances, 2015, 5, .	0.6	5
28	Fragileâ€toâ€Strong Crossover in Supercooled Liquid Agâ€Inâ€Sbâ€Te Studied by Ultrafast Calorimetry. Advanced Functional Materials, 2015, 25, 4851-4858.	7.8	109
29	Kissinger method applied to the crystallization of glass-forming liquids: Regimes revealed by ultra-fast-heating calorimetry. Thermochimica Acta, 2015, 603, 63-68.	1.2	46
30	Mid-infrared integrated optics: versatile hot embossing of mid-infrared glasses for on-chip planar waveguides for molecular sensing. Optical Engineering, 2014, 53, 071824.	0.5	18
31	Optically transparent magnetic and electrically conductive Feâ€“Crâ€“Zr ultraâ€thin films. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 999-1004.	0.8	10
32	Deposition techniques for chalcogenide thin films. , 2014, , 265-309.		21
33	Fast and slow crystal growth kinetics in glass-forming melts. Journal of Chemical Physics, 2014, 140, 214504.	1.2	93
34	Large-area inverse opal structures in a bulk chalcogenide glass by spin-coating and thin-film transfer. Optical Materials, 2013, 36, 390-395.	1.7	10
35	Reversible Amorphousâ€toâ€Amorphous Transitions in Chalcogenide Films: Correlating Changes in Structure and Optical Properties. Advanced Functional Materials, 2013, 23, 2052-2059.	7.8	20
36	Sub-micrometer soft lithography of a bulk chalcogenide glass. Optics Express, 2013, 21, 9584.	1.7	25

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37	Direct laser writing of relief diffraction gratings into a bulk chalcogenide glass. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 2779.	0.9	19
38	Structural Stability of the High-Aluminium Zinc Alloys Modified with Ti Addition. Archives of Foundry Engineering, 2012, 12, .	0.4	6
39	Ultra-fast calorimetry study of Ge₂Sb₂Te₅ crystallization between dielectric layers. Applied Physics Letters, 2012, 101, 091906.	1.5	43
40	Characterization of supercooled liquid Ge2Sb2Te5 and its crystallization by ultrafast-heating calorimetry. Nature Materials, 2012, 11, 279-283.	13.3	423
41	Soft imprint lithography of a bulk chalcogenide glass. Optical Materials Express, 2011, 1, 796.	1.6	36
42	All-chalcogenide middle infrared dielectric reflector and filter. Journal of Non-Crystalline Solids, 2011, 357, 157-160.	1.5	8
43	Inverse opal photonic crystal of chalcogenide glass by solution processing. Journal of Colloid and Interface Science, 2011, 353, 454-458.	5.0	35
44	Carbon nanotubeâ€"chalcogenide glass composite. Journal of Solid State Chemistry, 2010, 183, 144-149.	1.4	28
45	Spectroscopic properties of Ni2+ and rare-earth codoped Geâ€"Gaâ€"Sbâ€"S glass. Journal of Physics and Chemistry of Solids, 2010, 71, 30-34.	1.9	7
46	The optical properties of chalcogenide glasses: From measurement to electromagnetic simulation tools. , 2010, , .		7
47	1D-photonic crystals prepared from the amorphous chalcogenide films. Journal of Materials Science: Materials in Electronics, 2009, 20, 346-350.	1.1	9
48	On the atomic structure of thin amorphous Geâ€"Sbâ€"Te films. Physica Status Solidi (B): Basic Research, 2009, 246, 1871-1874.	0.7	9
49	Optical properties of conductive ZnO films near infrared frequency. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S110.	0.8	2
50	Medium-term thermal stability of amorphous Ge2Sb2Te5 flash-evaporated thin films with regards to change in structure and optical properties. Thin Solid Films, 2009, 517, 4694-4697.	0.8	10
51	Near infrared quazi-omnidirectional reflector in chalcogenide glasses. Optical Materials, 2009, 32, 154-158.	1.7	10
52	Optical properties of chalcogenide multilayer deposited on Au layer. Journal of Non-Crystalline Solids, 2009, 355, 1947-1950.	1.5	2
53	Planar chalcogenide quarter wave stack filter for near-infrared. Journal of Non-Crystalline Solids, 2009, 355, 1521-1525.	1.5	6
54	Ag diffusion in amorphous As50Se50 films studied by XPS. Journal of Non-Crystalline Solids, 2009, 355, 1844-1848.	1.5	12

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55	Optical and structural properties of Geâ€“Se bulk glasses and Agâ€“Geâ€“Se thin films. Journal of Non-Crystalline Solids, 2009, 355, 1951-1954.	1.5	31
56	Structure, electrical, optical and thermal properties of Ge4Sb4Te (x= 8, 9 and 10) thin films. Journal of Non-Crystalline Solids, 2009, 355, 1998-2002.	1.5	10
57	Embossing of chalcogenide glasses: monomode rib optical waveguides in evaporated thin films. Optics Letters, 2009, 34, 1234.	1.7	55
58	Preparation of dielectric mirrors from high-refractive index contrast amorphous chalcogenide films. Journal of Physics and Chemistry of Solids, 2008, 69, 2070-2074.	1.9	10
59	Optical properties and phase change transition in Ge2Sb2Te5 flash evaporated thin films studied by temperature dependent spectroscopic ellipsometry. Journal of Applied Physics, 2008, 104, .	1.1	84
60	Multilayer planar structures prepared from chalcogenide thin films of Asâ€“Se and Geâ€“Se systems and polymer thin films using thermal evaporation and spin-coating techniques. Journal of Non-Crystalline Solids, 2008, 354, 529-532.	1.5	11
61	Selective dissolution of Ag (As0.33S0.67â^'Se)100â^' chalcogenide thin films. Journal of Non-Crystalline Solids, 2008, 354, 533-539.	1.5	10
62	In-situ measurement of reversible photodarkening in ion-conducting chalcohalide glass. Optics Express, 2008, 16, 1466.	1.7	28
63	Technologies for the fabrication of photonic devices based on chalcogenide glasses. , 2008, , .		0
64	Characterization of RF magnetron sputtered Se-doped Ge2Sb2.3Te5 thin films. Materials Research Society Symposia Proceedings, 2008, 1072, 1.	0.1	0
65	Soft x-ray induced Ag diffusion in amorphous pulse laser deposited As50Se50 thin films: An x-ray photoelectron and secondary ion mass spectroscopy study. Journal of Applied Physics, 2008, 104, 043704.	1.1	7
66	Reversible photoinduced change of refractive index in ion-conducting chalcohalide glass. Applied Physics Letters, 2008, 92, .	1.5	14
67	Optical properties of As33S67â^'xSex bulk glasses studied by spectroscopic ellipsometry. Journal of Applied Physics, 2008, 103, .	1.1	24
68	Surface morphology of spin-coated Asâ€“Sâ€“Se chalcogenide thin films. Journal of Non-Crystalline Solids, 2007, 353, 1437-1440.	1.5	27
69	Selective wet-etching and characterization of chalcogenide thin films in inorganic alkaline solutions. Journal of Non-Crystalline Solids, 2007, 353, 1441-1445.	1.5	22
70	Properties and structure of Agx(As0.33S0.67)100â^'x bulk glasses. Journal of Non-Crystalline Solids, 2007, 353, 1232-1237.	1.5	21
71	Multilayer systems of alternating chalcogenide Asâ€“Se and polymer thin films prepared using thermal evaporation and spin-coating techniques. Journal of Physics and Chemistry of Solids, 2007, 68, 1268-1271.	1.9	9
72	Electromagnetic field distribution modelling in microlenses fabrication process. Journal of Physics and Chemistry of Solids, 2007, 68, 887-890.	1.9	0

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73	Selective wet-etching of amorphous/crystallized Agâ€“Asâ€“S and Agâ€“Asâ€“Sâ€“Se chalcogenide thin films. Journal of Physics and Chemistry of Solids, 2007, 68, 1008-1013.	1.9	12
74	Planar quarter wave stacks prepared from chalcogenide Geâ€“Se and polymer polystyrene thin films. Journal of Physics and Chemistry of Solids, 2007, 68, 2376-2380.	1.9	14
75	Limits of the copper decoration technique for delineating of the Vâ€“I boundary. Journal of Physics and Chemistry of Solids, 2007, 68, 1157-1160.	1.9	5
76	The comparison of Agâ€“As33S67 films prepared by thermal evaporation (TE), spin-coating (SC) and a pulsed laser deposition (PLD). Journal of Physics and Chemistry of Solids, 2007, 68, 953-957.	1.9	24
77	Selective wet-etching of undoped and silver photodoped amorphous thin films of chalcogenide glasses in inorganic alkaline solutions. Journal of Non-Crystalline Solids, 2006, 352, 1637-1640.	1.5	24
78	Amorphous films of Agâ€“Asâ€“S system prepared by spin-coating technique, preparation techniques and films physico-chemical properties. Vacuum, 2004, 76, 191-194.	1.6	20
79	Planar Quarter Wave Stack Reflectors Prepared from Chalcogenide Ge-Se and Polymer Polystyrene Thin Films. , 0, , .		0