

Jiri Orava

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77
papers

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h-index

37
g-index

80
ext. papers

1,835
ext. citations

4.9
avg, IF

4.79
L-index

#	Paper	IF	Citations
77	Characterization of supercooled liquid Ge ₂ Sb ₂ Te ₅ and its crystallization by ultrafast-heating calorimetry. <i>Nature Materials</i> , 2012 , 11, 279-83	27	347
76	Fragile-to-Strong Crossover in Supercooled Liquid Ag-In-Sb-Te Studied by Ultrafast Calorimetry. <i>Advanced Functional Materials</i> , 2015 , 25, 4851-4858	15.6	91
75	Fast and slow crystal growth kinetics in glass-forming melts. <i>Journal of Chemical Physics</i> , 2014 , 140, 214504	9.4	76
74	Optical properties and phase change transition in Ge ₂ Sb ₂ Te ₅ flash evaporated thin films studied by temperature dependent spectroscopic ellipsometry. <i>Journal of Applied Physics</i> , 2008 , 104, 043523	2.5	72
73	Mesoscale engineering of photonic glass for tunable luminescence. <i>NPG Asia Materials</i> , 2016 , 8, e318-e318.3	3	56
72	On cryothermal cycling as a method for inducing structural changes in metallic glasses. <i>NPG Asia Materials</i> , 2018 , 10, 137-145	10.3	50
71	Controlling Selective Doping and Energy Transfer between Transition Metal and Rare Earth Ions in Nanostructured Glassy Solids. <i>Advanced Optical Materials</i> , 2018 , 6, 1701407	8.1	47
70	Embossing of chalcogenide glasses: monomode rib optical waveguides in evaporated thin films. <i>Optics Letters</i> , 2009 , 34, 1234-6	3	42
69	Classical-nucleation-theory analysis of priming in chalcogenide phase-change memory. <i>Acta Materialia</i> , 2017 , 139, 226-235	8.4	41
68	Ultra-fast calorimetry study of Ge ₂ Sb ₂ Te ₅ crystallization between dielectric layers. <i>Applied Physics Letters</i> , 2012 , 101, 091906	3.4	41
67	Kissinger method applied to the crystallization of glass-forming liquids: Regimes revealed by ultra-fast-heating calorimetry. <i>Thermochimica Acta</i> , 2015 , 603, 63-68	2.9	37
66	Viscosity of liquid Ag-In-Sb-Te: Evidence of a fragile-to-strong crossover. <i>Journal of Chemical Physics</i> , 2016 , 144, 194503	3.9	33
65	Soft imprint lithography of a bulk chalcogenide glass. <i>Optical Materials Express</i> , 2011 , 1, 796	2.6	30
64	Inverse opal photonic crystal of chalcogenide glass by solution processing. <i>Journal of Colloid and Interface Science</i> , 2011 , 353, 454-8	9.3	29
63	In-situ measurement of reversible photodarkening in ion-conducting chalcogenide glass. <i>Optics Express</i> , 2008 , 16, 1466-74	3.3	25
62	Optical properties of As ₃₃ S ₆₇ Se _x bulk glasses studied by spectroscopic ellipsometry. <i>Journal of Applied Physics</i> , 2008 , 103, 083512	2.5	23
61	Selective wet-etching of undoped and silver photodoped amorphous thin films of chalcogenide glasses in inorganic alkaline solutions. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1637-1640	3.9	23

60	Optical and structural properties of GeSe bulk glasses and Ag ₂ GeSe thin films. <i>Journal of Non-Crystalline Solids</i> , 2009 , 355, 1951-1954	3.9	22
59	Carbon nanotube-chalcogenide glass composite. <i>Journal of Solid State Chemistry</i> , 2010 , 183, 144-149	3.3	22
58	The comparison of Ag ₂ As ₃₃ S ₆₇ films prepared by thermal evaporation (TE), spin-coating (SC) and a pulsed laser deposition (PLD). <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 953-957	3.9	21
57	Surface morphology of spin-coated As ₂ Se chalcogenide thin films. <i>Journal of Non-Crystalline Solids</i> , 2007 , 353, 1437-1440	3.9	21
56	Selective wet-etching and characterization of chalcogenide thin films in inorganic alkaline solutions. <i>Journal of Non-Crystalline Solids</i> , 2007 , 353, 1441-1445	3.9	20
55	The elastic-strain energy criterion of phase formation for complex concentrated alloys. <i>Materialia</i> , 2019 , 5, 100222	3.2	20
54	Sub-micrometer soft lithography of a bulk chalcogenide glass. <i>Optics Express</i> , 2013 , 21, 9584-91	3.3	19
53	Amorphous films of Ag ₂ As ₂ system prepared by spin-coating technique, preparation techniques and films physico-chemical properties. <i>Vacuum</i> , 2004 , 76, 191-194	3.7	18
52	Reversible Amorphous-to-Amorphous Transitions in Chalcogenide Films: Correlating Changes in Structure and Optical Properties. <i>Advanced Functional Materials</i> , 2013 , 23, 2052-2059	15.6	17
51	Properties and structure of Ag _x (As _{0.33} S _{0.67}) _{100-x} bulk glasses. <i>Journal of Non-Crystalline Solids</i> , 2007 , 353, 1232-1237	3.9	17
50	Elemental re-distribution inside shear bands revealed by correlative atom-probe tomography and electron microscopy in a deformed metallic glass. <i>Scripta Materialia</i> , 2019 , 168, 14-18	5.6	16
49	Direct laser writing of relief diffraction gratings into a bulk chalcogenide glass. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012 , 29, 2779	1.7	16
48	Mid-infrared integrated optics: versatile hot embossing of mid-infrared glasses for on-chip planar waveguides for molecular sensing. <i>Optical Engineering</i> , 2014 , 53, 071824	1.1	15
47	Fast-heating-induced formation of metallic-glass/crystal composites with enhanced plasticity. <i>Thermochimica Acta</i> , 2019 , 677, 198-205	2.9	14
46	Phase transformations in a Cu ₂ ZrAl metallic glass. <i>Scripta Materialia</i> , 2020 , 183, 61-65	5.6	13
45	Fast crystal growth in glass-forming liquids. <i>Journal of Non-Crystalline Solids</i> , 2016 , 451, 94-100	3.9	13
44	Reversible photoinduced change of refractive index in ion-conducting chalcogenide glass. <i>Applied Physics Letters</i> , 2008 , 92, 011114	3.4	13
43	Planar quarter wave stacks prepared from chalcogenide GeSe and polymer polystyrene thin films. <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 2376-2380	3.9	12

42	Ag diffusion in amorphous As ₅₀ Se ₅₀ films studied by XPS. <i>Journal of Non-Crystalline Solids</i> , 2009 , 355, 1844-1848	3.9	11
41	Selective wet-etching of amorphous/crystallized Ag ₂ As ₂ and Ag ₂ As ₂ Se chalcogenide thin films. <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 1008-1013	3.9	10
40	Correlating ultrafast calorimetry, viscosity, and structural measurements in liquid GeTe and Ge ₁₅ Te ₈₅ . <i>Physical Review Materials</i> , 2018 , 2,	3.2	10
39	1D-photonic crystals prepared from the amorphous chalcogenide films. <i>Journal of Materials Science: Materials in Electronics</i> , 2009 , 20, 346-350	2.1	9
38	Near infrared quazi-omnidirectional reflector in chalcogenide glasses. <i>Optical Materials</i> , 2009 , 32, 154-158	3.9	9
37	Structure, electrical, optical and thermal properties of Ge ₄ Sb ₄ Te _x (x = 8, 9 and 10) thin films. <i>Journal of Non-Crystalline Solids</i> , 2009 , 355, 1998-2002	3.9	9
36	Selective dissolution of Ag _x (As _{0.33} S _{0.67} Se _y) _{100-x} chalcogenide thin films. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 533-539	3.9	9
35	Multilayer systems of alternating chalcogenide As ₂ Se ₃ and polymer thin films prepared using thermal evaporation and spin-coating techniques. <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 1268-1271	3.9	9
34	Stimulation of shear-transformation zones in metallic glasses by cryogenic thermal cycling. <i>Journal of Non-Crystalline Solids</i> , 2020 , 548, 120299	3.9	9
33	Scalable In-Fiber Manufacture of Functional Composite Particles. <i>ACS Nano</i> , 2018 , 12, 11130-11138	16.7	9
32	Optically transparent magnetic and electrically conductive Fe _{0.7} Cr _{0.3} ultra-thin films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014 , 211, 999-1004	1.6	8
31	Large-area inverse opal structures in a bulk chalcogenide glass by spin-coating and thin-film transfer. <i>Optical Materials</i> , 2013 , 36, 390-395	3.3	8
30	All-chalcogenide middle infrared dielectric reflector and filter. <i>Journal of Non-Crystalline Solids</i> , 2011 , 357, 157-160	3.9	8
29	Medium-term thermal stability of amorphous Ge ₂ Sb ₂ Te ₅ flash-evaporated thin films with regards to change in structure and optical properties. <i>Thin Solid Films</i> , 2009 , 517, 4694-4697	2.2	8
28	Multilayer planar structures prepared from chalcogenide thin films of As ₂ Se ₃ and Ge ₂ Se ₆ systems and polymer thin films using thermal evaporation and spin-coating techniques. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 529-532	3.9	8
27	Preparation of dielectric mirrors from high-refractive index contrast amorphous chalcogenide films. <i>Journal of Physics and Chemistry of Solids</i> , 2008 , 69, 2070-2074	3.9	8
26	On the atomic structure of thin amorphous Ge ₂ Sb ₂ Te ₅ films. <i>Physica Status Solidi (B): Basic Research</i> , 2009 , 246, 1871-1874	1.3	7
25	In situ correlation between metastable phase-transformation mechanism and kinetics in a metallic glass. <i>Nature Communications</i> , 2021 , 12, 2839	17.4	7

24	In-situ study of athermal reversible photocrystallization in a chalcogenide glass. <i>Journal of Applied Physics</i> , 2017 , 122, 173101	2.5	6
23	Chalcogenides for Phase-Change Memory. <i>Handbook of Thermal Analysis and Calorimetry</i> , 2018 , 6, 685-734		6
22	Deposition techniques for chalcogenide thin films 2014 , 265-309		6
21	Planar chalcogenide quarter wave stack filter for near-infrared. <i>Journal of Non-Crystalline Solids</i> , 2009 , 355, 1521-1525	3.9	6
20	Spectroscopic properties of Ni ²⁺ and rare-earth codoped Ge ₄₀ Ta ₅₅ Se ₅ glass. <i>Journal of Physics and Chemistry of Solids</i> , 2010 , 71, 30-34	3.9	6
19	The optical properties of chalcogenide glasses: From measurement to electromagnetic simulation tools 2010 ,		5
18	Soft x-ray induced Ag diffusion in amorphous pulse laser deposited As ₅₀ Se ₅₀ thin films: An x-ray photoelectron and secondary ion mass spectroscopy study. <i>Journal of Applied Physics</i> , 2008 , 104, 043704	2.5	5
17	Regulated color-changing metallic glasses. <i>Journal of Alloys and Compounds</i> , 2021 , 876, 160139	5.7	5
16	Rejuvenation through plastic deformation of a La-based metallic glass measured by fast-scanning calorimetry. <i>Journal of Non-Crystalline Solids: X</i> , 2020 , 8, 100051	2.5	4
15	Fast-current-heating devices to study in situ phase formation in metallic glasses by using high-energy synchrotron radiation. <i>Review of Scientific Instruments</i> , 2020 , 91, 073901	1.7	4
14	Reversible migration of silver on memorized pathways in Ag-Ge ₄₀ Se ₆₀ films. <i>AIP Advances</i> , 2015 , 5, 077134	4.5	4
13	Structural Stability of the High-Aluminium Zinc Alloys Modified with Ti Addition. <i>Archives of Foundry Engineering</i> , 2012 , 12,		4
12	Limits of the copper decoration technique for delineating of the V _{II} boundary. <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 1157-1160	3.9	4
11	Preferred location for conducting filament formation in thin-film nano-ionic electrolyte: study of microstructure by atom-probe tomography. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 6846-6851	2.1	3
10	Optical properties of conductive ZnO films near infrared frequency. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009 , 6, S110-S113		2
9	Optical properties of chalcogenide multilayer deposited on Au layer. <i>Journal of Non-Crystalline Solids</i> , 2009 , 355, 1947-1950	3.9	2
8	Dynamic relaxations of a metallic glass studied on cooling. <i>Journal of Alloys and Compounds</i> , 2020 , 846, 156426	5.7	2
7	Effect of high-temperature up-quenching on stabilizing off-eutectic metallic glasses. <i>Physical Review B</i> , 2021 , 103,	3.3	2

6	Liquid-to-liquid transition around the glass-transition temperature in a glass-forming metallic liquid. <i>Acta Materialia</i> , 2022 , 225, 117588	8.4	1
5	Photoluminescence in pulsed-laser deposited GeGaSbS:Er films. <i>Optical Materials</i> , 2018 , 85, 246-253	3.3	1
4	Contrast of color-changing metallic glasses reveals the glass properties beneath the surface. <i>Journal of Alloys and Compounds</i> , 2022 , 901, 163674	5.7	0
3	Kinetically facilitated liquid-liquid transition in a metallic liquid. <i>Acta Materialia</i> , 2022 , 230, 117834	8.4	0
2	Characterization of RF magnetron sputtered Se-doped Ge ₂ Sb _{2.3} Te ₅ thin films. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1072, 1		
1	Electromagnetic field distribution modelling in microlenses fabrication process. <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 887-890	3.9	