

# Jiri Orava

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/4328378/jiri-orava-publications-by-year.pdf>

**Version:** 2024-04-19

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

77  
papers

1,606  
citations

21  
h-index

37  
g-index

80  
ext. papers

1,835  
ext. citations

4.9  
avg, IF

4.79  
L-index

#	Paper	IF	Citations
77	Contrast of color-changing metallic glasses reveals the glass properties beneath the surface. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 901, 163674	5.7	0
76	Liquid-to-liquid transition around the glass-transition temperature in a glass-forming metallic liquid. <i>Acta Materialia</i> , <b>2022</b> , 225, 117588	8.4	1
75	Kinetically facilitated liquid-liquid transition in a metallic liquid. <i>Acta Materialia</i> , <b>2022</b> , 230, 117834	8.4	0
74	Effect of high-temperature up-quenching on stabilizing off-eutectic metallic glasses. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	2
73	In situ correlation between metastable phase-transformation mechanism and kinetics in a metallic glass. <i>Nature Communications</i> , <b>2021</b> , 12, 2839	17.4	7
72	Regulated color-changing metallic glasses. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 876, 160139	5.7	5
71	Rejuvenation through plastic deformation of a La-based metallic glass measured by fast-scanning calorimetry. <i>Journal of Non-Crystalline Solids: X</i> , <b>2020</b> , 8, 100051	2.5	4
70	Phase transformations in a Cu <sub>40</sub> Zr <sub>40</sub> Al metallic glass. <i>Scripta Materialia</i> , <b>2020</b> , 183, 61-65	5.6	13
69	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> , <b>2020</b> , 91, 073901	1.7	4
68	Stimulation of shear-transformation zones in metallic glasses by cryogenic thermal cycling. <i>Journal of Non-Crystalline Solids</i> , <b>2020</b> , 548, 120299	3.9	9
67	Dynamic relaxations of a metallic glass studied on cooling. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 846, 156426	5.7	2
66	Fast-heating-induced formation of metallic-glass/crystal composites with enhanced plasticity. <i>Thermochimica Acta</i> , <b>2019</b> , 677, 198-205	2.9	14
65	Elemental re-distribution inside shear bands revealed by correlative atom-probe tomography and electron microscopy in a deformed metallic glass. <i>Scripta Materialia</i> , <b>2019</b> , 168, 14-18	5.6	16
64	The elastic-strain energy criterion of phase formation for complex concentrated alloys. <i>Materialia</i> , <b>2019</b> , 5, 100222	3.2	20
63	On cryothermal cycling as a method for inducing structural changes in metallic glasses. <i>NPG Asia Materials</i> , <b>2018</b> , 10, 137-145	10.3	50
62	Controlling Selective Doping and Energy Transfer between Transition Metal and Rare Earth Ions in Nanostructured Glassy Solids. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1701407	8.1	47
61	Chalcogenides for Phase-Change Memory. <i>Handbook of Thermal Analysis and Calorimetry</i> , <b>2018</b> , 6, 685-734		6

60	Correlating ultrafast calorimetry, viscosity, and structural measurements in liquid GeTe and Ge <sub>15</sub> Te <sub>85</sub> . <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	10
59	Scalable In-Fiber Manufacture of Functional Composite Particles. <i>ACS Nano</i> , <b>2018</b> , 12, 11130-11138	16.7	9
58	Photoluminescence in pulsed-laser deposited GeGaSbS:Er films. <i>Optical Materials</i> , <b>2018</b> , 85, 246-253	3.3	1
57	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> , <b>2017</b> , 28, 6846-6851	2.1	3
56	In-situ study of athermal reversible photocrystallization in a chalcogenide glass. <i>Journal of Applied Physics</i> , <b>2017</b> , 122, 173101	2.5	6
55	Classical-nucleation-theory analysis of priming in chalcogenide phase-change memory. <i>Acta Materialia</i> , <b>2017</b> , 139, 226-235	8.4	41
54	Mesoscale engineering of photonic glass for tunable luminescence. <i>NPG Asia Materials</i> , <b>2016</b> , 8, e318-e318.3	3	56
53	Fast crystal growth in glass-forming liquids. <i>Journal of Non-Crystalline Solids</i> , <b>2016</b> , 451, 94-100	3.9	13
52	Viscosity of liquid Ag-In-Sb-Te: Evidence of a fragile-to-strong crossover. <i>Journal of Chemical Physics</i> , <b>2016</b> , 144, 194503	3.9	33
51	Kissinger method applied to the crystallization of glass-forming liquids: Regimes revealed by ultra-fast-heating calorimetry. <i>Thermochimica Acta</i> , <b>2015</b> , 603, 63-68	2.9	37
50	Reversible migration of silver on memorized pathways in Ag-Ge <sub>40</sub> S <sub>60</sub> films. <i>AIP Advances</i> , <b>2015</b> , 5, 077134	3.5	4
49	Fragile-to-Strong Crossover in Supercooled Liquid Ag-In-Sb-Te Studied by Ultrafast Calorimetry. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 4851-4858	15.6	91
48	Optically transparent magnetic and electrically conductive Fe <sub>0.7</sub> Cr <sub>0.3</sub> Zr ultra-thin films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2014</b> , 211, 999-1004	1.6	8
47	Deposition techniques for chalcogenide thin films <b>2014</b> , 265-309		6
46	Fast and slow crystal growth kinetics in glass-forming melts. <i>Journal of Chemical Physics</i> , <b>2014</b> , 140, 214504	3.9	76
45	Mid-infrared integrated optics: versatile hot embossing of mid-infrared glasses for on-chip planar waveguides for molecular sensing. <i>Optical Engineering</i> , <b>2014</b> , 53, 071824	1.1	15
44	Large-area inverse opal structures in a bulk chalcogenide glass by spin-coating and thin-film transfer. <i>Optical Materials</i> , <b>2013</b> , 36, 390-395	3.3	8
43	Reversible Amorphous-to-Amorphous Transitions in Chalcogenide Films: Correlating Changes in Structure and Optical Properties. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 2052-2059	15.6	17

42	Sub-micrometer soft lithography of a bulk chalcogenide glass. <i>Optics Express</i> , <b>2013</b> , 21, 9584-91	3.3	19
41	Ultra-fast calorimetry study of Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> crystallization between dielectric layers. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 091906	3.4	41
40	Characterization of supercooled liquid Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> and its crystallization by ultrafast-heating calorimetry. <i>Nature Materials</i> , <b>2012</b> , 11, 279-83	27	347
39	Direct laser writing of relief diffraction gratings into a bulk chalcogenide glass. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2012</b> , 29, 2779	1.7	16
38	Structural Stability of the High-Aluminium Zinc Alloys Modified with Ti Addition. <i>Archives of Foundry Engineering</i> , <b>2012</b> , 12,		4
37	Soft imprint lithography of a bulk chalcogenide glass. <i>Optical Materials Express</i> , <b>2011</b> , 1, 796	2.6	30
36	All-chalcogenide middle infrared dielectric reflector and filter. <i>Journal of Non-Crystalline Solids</i> , <b>2011</b> , 357, 157-160	3.9	8
35	Inverse opal photonic crystal of chalcogenide glass by solution processing. <i>Journal of Colloid and Interface Science</i> , <b>2011</b> , 353, 454-8	9.3	29
34	The optical properties of chalcogenide glasses: From measurement to electromagnetic simulation tools <b>2010</b> ,		5
33	Carbon nanotube-chalcogenide glass composite. <i>Journal of Solid State Chemistry</i> , <b>2010</b> , 183, 144-149	3.3	22
32	Spectroscopic properties of Ni <sup>2+</sup> and rare-earth codoped Ge <sub>2</sub> As <sub>2</sub> S <sub>5</sub> glass. <i>Journal of Physics and Chemistry of Solids</i> , <b>2010</b> , 71, 30-34	3.9	6
31	1D-photonic crystals prepared from the amorphous chalcogenide films. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2009</b> , 20, 346-350	2.1	9
30	On the atomic structure of thin amorphous Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> films. <i>Physica Status Solidi (B): Basic Research</i> , <b>2009</b> , 246, 1871-1874	1.3	7
29	Optical properties of conductive ZnO films near infrared frequency. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2009</b> , 6, S110-S113		2
28	Medium-term thermal stability of amorphous Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> flash-evaporated thin films with regards to change in structure and optical properties. <i>Thin Solid Films</i> , <b>2009</b> , 517, 4694-4697	2.2	8
27	Near infrared quazi-omnidirectional reflector in chalcogenide glasses. <i>Optical Materials</i> , <b>2009</b> , 32, 154-158	3.3	9
26	Optical properties of chalcogenide multilayer deposited on Au layer. <i>Journal of Non-Crystalline Solids</i> , <b>2009</b> , 355, 1947-1950	3.9	2
25	Planar chalcogenide quarter wave stack filter for near-infrared. <i>Journal of Non-Crystalline Solids</i> , <b>2009</b> , 355, 1521-1525	3.9	6

24	Ag diffusion in amorphous As <sub>50</sub> Se <sub>50</sub> films studied by XPS. <i>Journal of Non-Crystalline Solids</i> , <b>2009</b> , 355, 1844-1848	3.9	11
23	Optical and structural properties of Ge <sub>2</sub> Se bulk glasses and Ag <sub>10</sub> Ge <sub>2</sub> Se thin films. <i>Journal of Non-Crystalline Solids</i> , <b>2009</b> , 355, 1951-1954	3.9	22
22	Structure, electrical, optical and thermal properties of Ge <sub>4</sub> Sb <sub>4</sub> Te <sub>x</sub> (x = 8, 9 and 10) thin films. <i>Journal of Non-Crystalline Solids</i> , <b>2009</b> , 355, 1998-2002	3.9	9
21	Embossing of chalcogenide glasses: monomode rib optical waveguides in evaporated thin films. <i>Optics Letters</i> , <b>2009</b> , 34, 1234-6	3	42
20	Optical properties and phase change transition in Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> flash evaporated thin films studied by temperature dependent spectroscopic ellipsometry. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 043523	2.5	72
19	Multilayer planar structures prepared from chalcogenide thin films of As <sub>2</sub> Se and Ge <sub>2</sub> Se systems and polymer thin films using thermal evaporation and spin-coating techniques. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 529-532	3.9	8
18	Selective dissolution of Ag <sub>x</sub> (As <sub>0.33</sub> S <sub>0.67</sub> Se <sub>y</sub> ) <sub>100-x</sub> chalcogenide thin films. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 533-539	3.9	9
17	In-situ measurement of reversible photodarkening in ion-conducting chalcogenide glass. <i>Optics Express</i> , <b>2008</b> , 16, 1466-74	3.3	25
16	Characterization of RF magnetron sputtered Se-doped Ge <sub>2</sub> Sb <sub>2.3</sub> Te <sub>5</sub> thin films. <i>Materials Research Society Symposia Proceedings</i> , <b>2008</b> , 1072, 1		
15	Soft x-ray induced Ag diffusion in amorphous pulse laser deposited As <sub>50</sub> Se <sub>50</sub> thin films: An x-ray photoelectron and secondary ion mass spectroscopy study. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 043704	2.5	5
14	Reversible photoinduced change of refractive index in ion-conducting chalcogenide glass. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 011114	3.4	13
13	Optical properties of As <sub>33</sub> S <sub>67</sub> Se <sub>x</sub> bulk glasses studied by spectroscopic ellipsometry. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 083512	2.5	23
12	Preparation of dielectric mirrors from high-refractive index contrast amorphous chalcogenide films. <i>Journal of Physics and Chemistry of Solids</i> , <b>2008</b> , 69, 2070-2074	3.9	8
11	Multilayer systems of alternating chalcogenide As <sub>2</sub> Se and polymer thin films prepared using thermal evaporation and spin-coating techniques. <i>Journal of Physics and Chemistry of Solids</i> , <b>2007</b> , 68, 1268-1271	3.9	9
10	Electromagnetic field distribution modelling in microlenses fabrication process. <i>Journal of Physics and Chemistry of Solids</i> , <b>2007</b> , 68, 887-890	3.9	
9	Selective wet-etching of amorphous/crystallized Ag <sub>10</sub> As <sub>2</sub> and Ag <sub>10</sub> As <sub>2</sub> Se chalcogenide thin films. <i>Journal of Physics and Chemistry of Solids</i> , <b>2007</b> , 68, 1008-1013	3.9	10
8	Planar quarter wave stacks prepared from chalcogenide Ge <sub>2</sub> Se and polymer polystyrene thin films. <i>Journal of Physics and Chemistry of Solids</i> , <b>2007</b> , 68, 2376-2380	3.9	12
7	Limits of the copper decoration technique for delineating of the V <sub>1</sub> boundary. <i>Journal of Physics and Chemistry of Solids</i> , <b>2007</b> , 68, 1157-1160	3.9	4

6	The comparison of Ag <sub>2</sub> As <sub>0.33</sub> S <sub>0.67</sub> films prepared by thermal evaporation (TE), spin-coating (SC) and a pulsed laser deposition (PLD). <i>Journal of Physics and Chemistry of Solids</i> , <b>2007</b> , 68, 953-957	3.9	21
5	Surface morphology of spin-coated As <sub>2</sub> Se <sub>3</sub> chalcogenide thin films. <i>Journal of Non-Crystalline Solids</i> , <b>2007</b> , 353, 1437-1440	3.9	21
4	Selective wet-etching and characterization of chalcogenide thin films in inorganic alkaline solutions. <i>Journal of Non-Crystalline Solids</i> , <b>2007</b> , 353, 1441-1445	3.9	20
3	Properties and structure of Ag <sub>x</sub> (As <sub>0.33</sub> S <sub>0.67</sub> ) <sub>100-x</sub> bulk glasses. <i>Journal of Non-Crystalline Solids</i> , <b>2007</b> , 353, 1232-1237	3.9	17
2	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> , <b>2006</b> , 352, 1637-1640	3.9	23
1	Amorphous films of Ag <sub>2</sub> As <sub>2</sub> system prepared by spin-coating technique, preparation techniques and films physico-chemical properties. <i>Vacuum</i> , <b>2004</b> , 76, 191-194	3.7	18