Ivo Zizak

List of Publications by Year
in descending order

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103 papers	3,501 citations	218381 26 h-index	149479 56 g-index
104 all docs	104 docs citations	104 times ranked	5334 citing authors

#	Article	IF	Citations
1	Combinatorial inkjet printing for compositional tuning of metal-halide perovskite thin films. Journal of Materials Chemistry A, 2022, 10, 4906-4914.	5.2	12
2	Multiscale X-ray study of Bacillus subtilis biofilms reveals interlinked structural hierarchy and elemental heterogeneity. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	19
3	X-ray diffraction by surface acoustic waves. Journal of Applied Crystallography, 2021, 54, 180-194.	1.9	2
4	Piezo-modulated active grating for selecting X-ray pulses separated by one nanosecond. Optics Express, 2021, 29, 34962.	1.7	1
5	The Crystallization Process of Vaterite Microdisc Mesocrystals via Proto-Vaterite Amorphous Calcium Carbonate Characterized by Cryo-X-ray Absorption Spectroscopy. Crystals, 2020, 10, 750.	1.0	6
6	Vaterite Microdisc Mesocrystals Exposing the (001) Facet Formed via Transformation from Proto-Vaterite Amorphous Calcium Carbonate. Crystal Growth and Design, 2020, 20, 3482-3492.	1.4	10
7	X-ray diffraction on La3Ga5SiO14 crystal modulated by SAW near the K absorption edge of Ga. Applied Physics Letters, 2020, 116, 174101.	1.5	1
8	Cation distribution in Cu₂ZnSnSe₄, Cu₂FeSnS₄and Cu₂ZnSiSe₄by multiple-edge anomalous diffraction. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2020, 76, 1027-1035.	0.5	5
9	MEAD, salt and sunshine: cation distribution in CZTSe, CFTS and CZSiSe. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, e279-e279.	0.0	0
10	Carbon-based Fresnel optics for hard x-ray astronomy. Applied Optics, 2018, 57, 1857.	0.9	3
11	Effect of Thermal Treatment on the Atomic Structure and Electrochemical Characteristics of Bimetallic PtCu Coreâ€“Shell Nanoparticles in PtCu/C Electrocatalysts. Journal of Physical Chemistry C, 2018, 122, 17199-17210.	1.5	18
12	Gratings for synchrotron and FEL beamlines: aÂproject for the manufacture of ultra-precise gratings at Helmholtz Zentrum Berlin. Journal of Synchrotron Radiation, 2018, 25, 91-99.	1.0	27
13	X-ray absorption spectroscopy options for crystallographic research at BESSY II. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e322-e322.	0.0	0
14	Scaffold curvature-mediated novel biomineralization process originates a continuous soft tissue-to-bone interface. Acta Biomaterialia, 2017, 60, 64-80.	4.1	62
15	Pulse picker for synchrotron radiation driven by a surface acoustic wave. Optics Letters, 2017, 42, 1915.	1.7	6
16	Observation of sagittal X-ray diffraction by surface acoustic waves in Bragg geometry. Journal of Applied Crystallography, 2017, 50, 525-530.	1.9	7
17	Water-Mediated Collagen and Mineral Nanoparticle Interactions Guide Functional Deformation of Human Tooth Dentin. Chemistry of Materials, 2016, 28, 3416-3427.	3.2	38
18	Bimetallic PtCu core-shell nanoparticles in PtCu/C electrocatalysts: Structural and electrochemical characterization. Applied Catalysis A: General, 2016, 525, 226-236.	2.2	44

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19	Piezoelectric Ca3NbGa3Si2O14 crystal: crystal growth, piezoelectric and acoustic properties. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	8
20	In situ monitoring and ex situ TEM analyses of spinel (MgAl $$_2$$ 2 O $$_4$$ 4) growth between (111)-oriented periclase (MgO) substrates and Al $$_2$$ 2 O $$_3$$ 3 thin films. Journal of Materials Science, 2016, 51, 8824-8844.	1.7	1
21	Water oxidation catalysis â€“ role of redox and structural dynamics in biological photosynthesis and inorganic manganese oxides. Energy and Environmental Science, 2016, 9, 2433-2443.	15.6	99
22	Nanostructural changes in crystallizable controlling units determine the temperature-memory of polymers. Journal of Materials Chemistry A, 2015, 3, 8284-8293.	5.2	16
23	Atomic Structure of Bimetallic Nanoparticles in PtAg/C Catalysts: Determination of Components Distribution in the Range from Disordered Alloys to â€œCoreâ€“Shellâ€•Structures. Journal of Physical Chemistry C, 2015, 119, 3217-3227.	1.5	31
24	The earliest stage of phase growth in sharp concentration gradients. Acta Materialia, 2015, 87, 111-120.	3.8	6
25	Exceptional adsorption-induced cluster and network deformation in the flexible metalâ€“organic framework DUT-8(Ni) observed by in situ X-ray diffraction and EXAFS. Physical Chemistry Chemical Physics, 2015, 17, 17471-17479.	1.3	96
26	Adhesion measurement of a buried Cr interlayer on polyimide. Philosophical Magazine, 2015, 95, 1982-1991.	0.7	15
27	Surface acoustic wave propagation in graphene film. Journal of Applied Physics, 2015, 118, .	1.1	26
28	Recovery of electrical resistance in copper films on polyethylene terephthalate subjected to a tensile strain. Thin Solid Films, 2014, 552, 141-145.	0.8	26
29	Advanced piezoelectric crystal Ca3TaGa3Si2O14: growth, crystal structure perfection, and acoustic properties. Applied Physics A: Materials Science and Processing, 2014, 114, 1105-1112.	1.1	23
30	Structural Changes in Li₂MnO₃ Cathode Material for Liâ€ion Batteries. Advanced Energy Materials, 2014, 4, 1300998.	10.2	194
31	Early diagenesis of elephant tusk in marine environment. Palaeogeography, Palaeoclimatology, Palaeoecology, 2014, 416, 120-132.	1.0	16
32	Direct observation of liquid pre-crystallization intermediates during the reduction of aqueous tetrachloroaurate by sulfide ions. Physical Chemistry Chemical Physics, 2014, 16, 4538.	1.3	9
33	Conformation-Controlled Sorption Properties and Breathing of the Aliphatic Al-MOF [Al(OH)(CDC)]. Inorganic Chemistry, 2014, 53, 4610-4620.	1.9	74
34	Effect of iron-carbide formation on the number of active sites in Feâ€“Nâ€“C catalysts for the oxygen reduction reaction in acidic media. Journal of Materials Chemistry A, 2014, 2, 2663-2670.	5.2	108
35	In Situ Observation of Gating Phenomena in the Flexible Porous Coordination Polymer Zn₂(BPnDC)₂(bpy) (SNU-9) in a Combined Diffraction and Gas Adsorption Experiment. Inorganic Chemistry, 2014, 53, 1513-1520.	1.9	43
36	Growth of magnesio-aluminate spinel in thin-film geometry: in situ monitoring using synchrotron X-ray diffraction and thermodynamic model. Physics and Chemistry of Minerals, 2014, 41, 681-693.	0.3	11

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37	Giant pressure-induced volume collapse in the pyrite mineral MnS ₂. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5106-5110.	3.3	37
38	In situ monitoring of structural changes during the adsorption on flexible porous coordination polymers by X-ray powder diffraction: Instrumentation and experimental results. Microporous and Mesoporous Materials, 2014, 188, 190-195.	2.2	58
39	Neutron and synchrotron probes in the development of Coâ€“Re-based alloys for next generation gas turbines with an emphasis on the influence of boron additives. Journal of Applied Crystallography, 2014, 47, 1417-1430.	1.9	13
40	A customizable software for fast reduction and analysis of large X-ray scattering data sets: applications of the newDPDAKpackage to small-angle X-ray scattering and grazing-incidence small-angle X-ray scattering. Journal of Applied Crystallography, 2014, 47, 1797-1803.	1.9	244
41	X-ray diffraction study of surface acoustic waves and pseudo-surface acoustic waves propagation in La3Ga5.5Ta0.5O14 crystal. Journal of Applied Physics, 2013, 113, 144909.	1.1	7
42	Piezoresistive Ni:a-C:H thin films containing hcp-Ni or Ni3C investigated by XRD, EXAFS, and wavelet analysis. Diamond and Related Materials, 2013, 34, 25-35.	1.8	23
43	Toward subâ€microâ€XRF working at nanometer range using capillary optics. X-Ray Spectrometry, 2013, 42, 456-461.	0.9	4
44	Characterization of L2₁order in Co₂FeSi thin films on GaAs. Journal of Physics: Conference Series, 2013, 471, 012022.	0.3	1
45	Initial evaluation of the European XFEL undulator commissioning spectrometer with a single channel-cut crystal. , 2012, , .		5
46	Feasibility of simultaneous surface topography and XRF mapping using Shear Force Microscopy. International Journal of Nanotechnology, 2012, 9, 460.	0.1	4
47	Residual disorder and diffusion in thin Heusler alloy films. Physical Review B, 2012, 86, .	1.1	6
48	The influence of electrical stimulation of vagus nerve on elemental composition of dopamine related brain structures in rats. Neurochemistry International, 2012, 61, 156-165.	1.9	12
49	Density minimum of confined water at low temperatures: a combined study by small-angle scattering of X-rays and neutrons. Physical Chemistry Chemical Physics, 2012, 14, 3852.	1.3	76
50	Ultrahigh gain AlGaN/GaN high energy radiation detectors. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1562-1567.	0.8	8
51	Local structure and site substitution in Al86Ni6Co2Y4.5La1.5 bulk amorphous alloy. Materials Letters, 2012, 70, 171-173.	1.3	12
52	Synchrotron measurement of the 3D shape of X-ray reflections from the Î³/Î³â€²-microstructure of nickel-base superalloys. International Journal of Materials Research, 2011, 102, 1452-1458.	0.1	2
53	Decomposition of TiH2 studied in situ by synchrotron X-ray and neutron diffraction. Acta Materialia, 2011, 59, 6318-6330.	3.8	85
54	Clay pigment structure characterisation as a guide for provenance determinationâ€”a comparison between laboratory powder micro-XRD and synchrotron radiation XRD. Analytical and Bioanalytical Chemistry, 2011, 399, 331-336.	1.9	11

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55	Combining scanning probe microscopy and x-ray spectroscopy. Nanoscale Research Letters, 2011, 6, 308.	3.1	15
56	Application of Conventional and Microbeam Synchrotron Radiation X-Ray Fluorescence and Absorption for the Characterization of Human Nails. Journal of Nanoscience and Nanotechnology, 2010, 10, 6266-6275.	0.9	9
57	High temperature stability of Cr-carbides in an experimental Coâ€“Re-based alloy. International Journal of Materials Research, 2010, 101, 340-348.	0.1	18
58	Submicron resolution carrier lifetime analysis in silicon with Fano resonances. Physica Status Solidi - Rapid Research Letters, 2010, 4, 160-162.	1.2	14
59	Scanning X-ray excited optical luminescence microscopy of multi-crystalline silicon. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1940-1943.	0.8	6
60	Frustration of the stable Zr-Ti-Ni quasicrystal as the basis of glass formation. Physical Review B, 2010, 81, .	1.1	8
61	Characterization of the Orientation Parameters Around Crack Tips in Unfilled and Nanofilled Poly(propylene) Using inâ€situ Synchrotron Small and Wide Angle Scanning Scattering Techniques. Macromolecular Symposia, 2010, 296, 189-196.	0.4	1
62	Deformation-induced crystallization in amorphous Al85Ni10La5 alloy. Journal of Alloys and Compounds, 2010, 493, 683-691.	2.8	19
63	Origin of the reduced exchange bias in an epitaxial FeNi(111)/CoO(111) bilayer. Physical Review B, 2009, 79, .	1.1	42
64	On the Influence of Sulphur on the Pyrolysis Process of FeTMPP-Cl-based Electro-Catalysts with Respect to Oxygen Reduction Reaction (ORR) in Acidic Media. ECS Transactions, 2009, 25, 659-670.	0.3	38
65	Two-stage relaxation of damage structure in strongly creep-deformed single crystal superalloy SC16 measured by means of X-ray diffraction. Scripta Materialia, 2009, 60, 88-91.	2.6	5
66	High temperature powder diffraction and solid state DFT study of Î²â€cryolite (Na₃AlF₆). Crystal Research and Technology, 2009, 44, 834-840.	0.6	10
67	Grain rotation in nanocrystalline layers under influence of swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 944-948.	0.6	17
68	Nanoresolution interface studies in thin films by synchrotron xâ€ray diffraction and by using xâ€ray waveguide structure. X-Ray Spectrometry, 2009, 38, 338-342.	0.9	11
69	Synchrotron microscopy and spectroscopy for analysis of crystal defects in silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 765-771.	0.8	14
70	Combined XBIC/Î¼â€XRF/Î¼â€XAS/DLTS investigation of chemical character and electrical properties of Cu and Ni precipitates in silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1868-1873.	0.8	6
71	Hard X-ray micro-spectroscopy at Berliner Elektronenspeicherring fÃ¼r Synchrotronstrahlung II. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 833-848.	1.5	29
72	Performance of a polycapillary halflens as focussing and collecting opticâ€”a comparison. Journal of Analytical Atomic Spectrometry, 2009, 24, 669.	1.6	32

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73	Structural transformations in NANOPERM-type alloys studied by MÃ¶ssbauer spectrometry and diffraction of synchrotron radiation. Hyperfine Interactions, 2008, 183, 31-35.	0.2	3
74	Depth resolved structural study of heavy ion induced phase formation in Si/Fe/Si trilayer. Hyperfine Interactions, 2008, 185, 9-15.	0.2	4
75	Ion-beam induced nano-sized Ag-metal clusters in glass. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 149, 200-203.	1.7	6
76	Ion-Beam-Induced Collective Rotation of Nanocrystals. Physical Review Letters, 2008, 101, 065503.	2.9	33
77	Linear growth kinetics of nanometric silicides in Co/amorphous-Si and Co/CoSi/amorphous-Si thin films. Journal of Applied Physics, 2008, 104, .	1.1	23
78	Profiling of fibre texture gradients in thin films by anomalous X-ray diffraction. Zeitschrift FÃ¼r Kristallographie, Supplement, 2008, 2008, 263-271.	0.5	4
79	Correlation between icosahedral short range order, glass forming ability, and thermal stability of Zrâ€“Tiâ€“Niâ€“Cuâ€“(Be) glasses. Applied Physics Letters, 2007, 91, 021907.	1.5	22
80	Size-independent stresses in Al thin films thermally strained down to â¯100Â°C. Acta Materialia, 2007, 55, 1941-1946.	3.8	38
81	X-ray measurements with micro- and nanoresolution at BESSY. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 622-625.	1.5	12
82	Lattice distortion in Î³â€² precipitates of single crystal superalloy SC16 under creep deformation. Nuclear Instruments & Methods in Physics Research B, 2006, 246, 201-205.	0.6	8
83	The growth and structure of titanium dioxide films on a Re(10â¯10) surface: Rutile(011)-(2Ã—1). Surface Science, 2006, 600, 2830-2840.	0.8	12
84	Nucleation at the phase transition near 40Â°C in MnAs nanodisks. Applied Physics Letters, 2006, 89, 051915.	1.5	5
85	Surface and bulk structural changes in InP single crystals induced by 350Mev Au ion irradiation. Physica B: Condensed Matter, 2005, 357, 118-121.	1.3	3
86	Temperature dependence of x-ray intensity profile FWHM of the Î³â€² phase in the creep-deformed single crystal superalloy SC16. Journal Physics D: Applied Physics, 2005, 38, A200-A203.	1.3	11
87	Cylindrical nanopores in NiO induced by swift heavy ions. Applied Physics Letters, 2005, 87, 173110.	1.5	23
88	X-ray elastic constants determined by the combination of sin2Ïˆ and substrate-curvature methods. International Journal of Materials Research, 2005, 96, 1069-1073.	0.8	12
89	Revealing antiphase-domain dynamics in alloys by combining advanced statistical techniques with x-ray photon correlation spectroscopy. Physical Review B, 2004, 69, .	1.1	17
90	Transient Interface Sharpening in Miscible Alloys. Science, 2004, 306, 1913-1915.	6.0	76

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91	Mineralized Microstructure of Calcified Avian Tendons: A Scanning Small Angle X-ray Scattering Study. Calcified Tissue International, 2003, 72, 567-576.	1.5	26
92	Surface crystallinity and radiation-amorphization of InP â€“ An X-ray grazing incidence study. Nuclear Instruments & Methods in Physics Research B, 2003, 209, 131-135.	0.6	5
93	Structural and magnetic phase transition in MnAs(0001)/GaAs(111) epitaxial films. Physical Review B, 2003, 68, .	1.1	17
94	Characteristics of mineral particles in the human bone/cartilage interface. Journal of Structural Biology, 2003, 141, 208-217.	1.3	153
95	Viscoelastic properties of collagen: synchrotron radiation investigations and structural model. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 191-197.	1.8	434
96	Coarsening in the Ising model with vacancy dynamics. Physica A: Statistical Mechanics and Its Applications, 2000, 279, 100-109.	1.2	16
97	Fibrillar Structure and Mechanical Properties of Collagen. Journal of Structural Biology, 1998, 122, 119-122.	1.3	539
98	Dissolution of precipitates heated above the solubility line: A Monte Carlo simulation. Physical Review B, 1997, 55, 12121-12127.	1.1	4
99	Scanning X-Ray Excited Optical Luminescence Microscopy as a New Tool for the Analysis of Recombination Active Defects in Multi-Crystalline Silicon. Solid State Phenomena, 0, 178-179, 301-306.	0.3	0
100	The mySpot beamline at BESSY II. Journal of Large-scale Research Facilities JLSRF, 0, 2, A102.	0.0	20
101	mySpot: a versatile microfocussing station for scanning methods at BESSY II. Journal of Large-scale Research Facilities JLSRF, 0, 2, A101.	0.0	5
102	The KMC-3 XPP beamline at BESSY II. Journal of Large-scale Research Facilities JLSRF, 0, 3, A123.	0.0	5
103	Slot-die coated perovskite solar cell with 22% power conversion efficiency and minimodules via grain boundaries passivation. , 0, , .		0