

Karel Jurek

List of Publications by Year in descending order

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133
papers

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331670
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times ranked

1633
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetic properties and domain structure of magnetic shape memory Ni ϵ -Mn ϵ -Ga alloy. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 996-998.	2.3	81
2	The effect of compressive stress on thermal and hygric properties of Portland cement mortar in wide temperature and moisture ranges. Cement and Concrete Research, 2000, 30, 1267-1276.	11.0	52
3	Antibacterial, mechanical and surface properties of Ag-DLC films prepared by dual PLD for medical applications. Materials Science and Engineering C, 2017, 77, 955-962.	7.3	49
4	Antibacterial, cytotoxicity and physical properties of laser ϵ Silver doped hydroxyapatite layers. Materials Science and Engineering C, 2013, 33, 1242-1246.	7.3	46
5	Chromium-doped DLC for implants prepared by laser-magnetron deposition. Materials Science and Engineering C, 2015, 46, 381-386.	7.3	46
6	Magnetic behaviour of RCuAl compounds. Journal of Alloys and Compounds, 1998, 264, 38-42.	5.5	43
7	Fast migration of alkali ions in glass irradiated by electrons. Journal of Non-Crystalline Solids, 1999, 246, 1-8.	3.1	42
8	Changes in alkali-silicate glasses induced with electron irradiation. Journal of Non-Crystalline Solids, 2008, 354, 1169-1171.	3.1	39
9	Structure determination of KLaS ϵ , KPrS ϵ , KEuS ϵ , KGdS ϵ , KLuS ϵ , KYS ϵ , RbYS ϵ , NaLaS ϵ and crystal-chemical analysis of the group 1 and thallium(I) rare-earth sulfide series. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2014, 70, 360-371.	1.1	37
10	Antibacterial properties of Ag-doped hydroxyapatite layers prepared by PLD method. Applied Physics A: Materials Science and Processing, 2010, 101, 615-620.	2.3	34
11	Microanalysis of Glass Containing Alkali Ions. Mikrochimica Acta, 2000, 132, 505-510.	5.0	32
12	Development of magnetic order in the pseudo-ternary series ErNi ϵ xCuAl. Journal of Magnetism and Magnetic Materials, 2004, 283, 34-45.	2.3	30
13	Optical, luminescence and scintillation characteristics of Bi-doped LuAG and YAG single crystalline films. Journal Physics D: Applied Physics, 2009, 42, 075501.	2.8	30
14	A domain study of magnetization processes in a stress-annealed metallic glass ribbon for fluxgate sensors. Journal of Magnetism and Magnetic Materials, 1992, 117, 61-68.	2.3	29
15	Influence of silicon on high-temperature cyclic oxidation behaviour of titanium. Journal of Alloys and Compounds, 2005, 394, 240-249.	5.5	29
16	Changes in surface morphology of silicate glass induced by fast electron irradiation. Journal of Non-Crystalline Solids, 2007, 353, 1946-1950.	3.1	28
17	Surface protection of titanium by Ti ϵ Si ϵ silicide layer prepared by combination of vapour phase siliconizing and heat treatment. Journal of Alloys and Compounds, 2008, 464, 179-184.	5.5	28
18	Dependence of Ce ϵ - related photo- and thermally stimulated luminescence characteristics on Mg ϵ content in single crystals and epitaxial films of Gd ϵ (Ga,Al) ϵ O ϵ :Ce,Mg. Optical Materials, 2018, 83, 290-299.	3.6	23

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19	Investigation of the RF pulse modulated plasma jet system during the deposition of Pb(Zr _x Ti _{1-x})O ₃ thin films on polymer substrates. Surface and Coatings Technology, 2005, 200, 940-946.	4.8	22
20	The use and accuracy of the ZAF correction procedure for the microanalysis of glasses. Mikrochimica Acta, 1980, 73, 183-198.	5.0	21
21	Characterization of TiO ₂ and ZrO ₂ coatings on silica slabs and fibres. Journal of Materials Science, 1992, 27, 2549-2555.	3.7	21
22	Volume changes in glass induced by an electron beam. Nuclear Instruments & Methods in Physics Research B, 2014, 322, 7-12.	1.4	20
23	Co ₃ O ₄ thin films prepared by hollow cathode discharge. Surface and Coatings Technology, 2019, 366, 303-310.	4.8	19
24	The role of coating densities in X-ray microanalysis. Mikrochimica Acta, 1994, 114-115, 323-326.	5.0	18
25	Influence of preparation conditions on 211 particle refinement in YBCO bulk superconductors with Ce addition. Physica C: Superconductivity and Its Applications, 2013, 494, 31-35.	1.2	17
26	The temperature dependence studies of rare-earth (Dy ³⁺ , Sm ³⁺ , Eu ³⁺ and Tb ³⁺) activated Gd ₃ Ga ₃ Al ₂ O ₁₂ garnet single crystals. Journal of Luminescence, 2017, 189, 126-139.	3.1	17
27	Field effect in dc-sputtered a-Si:H in structure using SiN _x prepared in situ. Journal of Non-Crystalline Solids, 1985, 70, 1-8.	3.1	16
28	Preparation and the crystal structure of a new manganate, Sr ₄ Mn ₃ O ₁₀ . Journal of Solid State Chemistry, 1988, 73, 520-523.	2.9	16
29	Zig-zag domain walls in creep-annealed metallic glass. Journal of Magnetism and Magnetic Materials, 1988, 73, 334-338.	2.3	16
30	Photoinduced bleaching of Ge ₃₅ Se ₆₅ amorphous film. Journal of Non-Crystalline Solids, 1988, 101, 223-226.	3.1	16
31	High field transport in semi-insulating GaAs: A promising material for solid-state detectors. Journal of Applied Physics, 1997, 82, 3358-3362.	2.5	16
32	Cyclic-Oxidation Resistance of Protective Silicide Layers on Titanium. Oxidation of Metals, 2005, 63, 305-323.	2.1	16
33	Volume and composition surface changes in alkali silicate glass irradiated with electrons. Mikrochimica Acta, 2008, 161, 377-380.	5.0	16
34	Lead-silicate glass surface sputtered by an argon cluster ion beam investigated by XPS. Journal of Non-Crystalline Solids, 2017, 469, 1-6.	3.1	15
35	Line-tunable Er:GGAG laser. Optics Letters, 2018, 43, 3309.	3.3	15
36	Charge trapping processes and energy transfer studied in lead molybdate by EPR and TSL. Journal of Luminescence, 2019, 205, 457-466.	3.1	15

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37	Photoinduced and thermally induced bleaching of amorphous Ge ⁺ ES films. Philosophical Magazine Letters, 1988, 58, 233-237.	1.2	14
38	Investigation of the atmospheric RF torch-barrier plasma jet for deposition of CeOx thin films. Surface and Coatings Technology, 2003, 169-170, 571-574.	4.8	14
39	Pd-catalysts for DFAFC prepared by magnetron sputtering. Applied Surface Science, 2017, 419, 838-846.	6.1	14
40	Photoelectron and infrared spectroscopy of semi-insulating silicon layers. Journal of Applied Physics, 1997, 82, 3519-3527.	2.5	13
41	Structural Study of the DyNi _{1-x} Cu _x Al System. European Physical Journal D, 2004, 54, 315-318.	0.4	13
42	Behavior of silver substitution in single-grain TSMG YBCO bulk superconductor. Physica C: Superconductivity and Its Applications, 2010, 470, 155-158.	1.2	13
43	Optical properties of laser-prepared Er- and Er,Yb-doped LiNbO ₃ waveguiding layers. Laser Physics, 2013, 23, 105819.	1.2	13
44	Chromium-doped diamond-like carbon films deposited by dual-pulsed laser deposition. Applied Physics A: Materials Science and Processing, 2014, 117, 83-88.	2.3	13
45	Contamination of YBCO bulk superconductors by samarium and ytterbium. Physica C: Superconductivity and Its Applications, 2014, 496, 14-17.	1.2	13
46	Preparation of Yb ₂ O ₃ submicron- and nano-materials via electrospinning. Ceramics International, 2015, 41, 10795-10802.	4.8	13
47	Mixed alkali effect in glass irradiated by 50 keV electron beam. Journal of Non-Crystalline Solids, 2001, 279, 14-19.	3.1	12
48	Irradiation induced densification and its correlation with three-membered rings in vitreous silica. Journal of Non-Crystalline Solids, 2015, 425, 61-66.	3.1	12
49	Properties of thin N-type Yb _{0.14} Co ₄ Sb ₁₂ and P-type Ce _{0.09} Fe _{0.67} Co _{3.33} Sb ₁₂ skutterudite layers prepared by laser ablation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 523-527.	2.1	11
50	Reduced Young modulus and hardness of electron irradiated binary potassium-silicate glass. Nuclear Instruments & Methods in Physics Research B, 2012, 275, 7-10.	1.4	11
51	YBCO bulk superconductors doped with gadolinium and samarium. Physica C: Superconductivity and Its Applications, 2013, 494, 36-40.	1.2	11
52	Magnetic Domains and Twin Microstructure of Single Crystal Ni _{0.4} Mn _{0.6} Ga Exhibiting Magnetic Shape Memory Effect. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	11
53	Infrared transmission study of crystal-field excitations in Al- and Sr-doped Pr _{1-x} Ba _{2x} Cu ₃ O ₆ . Physical Review B, 2004, 69, .	3.2	10
54	Periodic oscillations of thin film properties with their thickness for mixed real Bi ₂ (M+N)Te ₃ N phases. Surface and Coatings Technology, 2005, 200, 273-275.	4.8	10

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55	Flux growth of ZnO crystals doped by transition metals. Journal of Crystal Growth, 2011, 314, 123-128.	1.5	10
56	Dual laser deposition of Ti:DLC composite for implants. Laser Physics, 2016, 26, 105605.	1.2	10
57	Comparative Light Microscopical and X-Ray Microanalysis Study of Barium Granuloma. Pathology Research and Practice, 1981, 171, 293-302.	2.3	9
58	Domain wall motion in magnetically soft metallic glasses. European Physical Journal D, 1987, 37, 42-46.	0.4	9
59	Domain observation of a CoCr film by the colloid-SEM method. Journal of Magnetism and Magnetic Materials, 1988, 73, 131-135.	2.3	9
60	Infrared transmission study of crystal-field excitations in $\text{La}_{2-x}\text{Nd}_x\text{Sr}_y\text{CuO}_4$. Physical Review B, 2002, 66, .	3.2	9
61	Temperature dependence of the optical energy gap of CdSSe nanocrystals in glass. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 104, 54-57.	3.5	9
62	Binary potassium-silicate glass irradiated with electrons. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 3461-3465.	1.4	9
63	Structural and volume changes and their correlation in electron irradiated alkali silicate glasses. Nuclear Instruments & Methods in Physics Research B, 2017, 397, 15-26.	1.4	9
64	Preliminary Study of Ge-DLC Nanocomposite Biomaterials Prepared by Laser Codeposition. Nanomaterials, 2019, 9, 451.	4.1	9
65	Diamond growth by microwave plasma enhanced chemical vapour deposition: Optical emission characterisation and effect argon addition. Physica Status Solidi A, 2004, 201, 2425-2431.	1.7	8
66	Anomalous magnetoresistance of carbon-doped EuB_6 : Possible role of nonferromagnetic regions. Physical Review B, 2008, 78, .	3.2	8
67	Structural characteristics and morphology of $\text{Sm}_x\text{Ce}_{1-x}\text{O}_{2-x/2}$ thin films. Applied Surface Science, 2009, 255, 9085-9091.	6.1	8
68	Doped biocompatible layers prepared by laser. Laser Physics, 2010, 20, 562-567.	1.2	8
69	Preliminary comparative study of laser-prepared DLC and Cr-doped DLC for bacteria adhesion. Applied Physics A: Materials Science and Processing, 2014, 116, 1437-1443.	2.3	8
70	Wavelength tunability of laser based on Yb-doped GGAG crystal. Laser Physics, 2018, 28, 105802.	1.2	8
71	Effect of the pressing on the properties of the superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Phase. Crystal Research and Technology, 1988, 23, K6-K10.	1.3	7
72	The effect of electron beam current in SEM on the observed domain structure of metallic glasses. Journal of Magnetism and Magnetic Materials, 1990, 86, 254-260.	2.3	7

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73	Decay Curve Analysis of Alkali-Silicate Glass Exposed to Electrons. <i>Mikrochimica Acta</i> , 2002, 139, 67-70.	5.0	7
74	Precipitation in the Fe-38Åat.% Al-1Åat.% C alloy. <i>Intermetallics</i> , 2010, 18, 1327-1331.	3.9	7
75	Mixed-alkali effect in sodium&potassium glasses irradiated with electrons. <i>Journal of Non-Crystalline Solids</i> , 2010, 356, 456-460.	3.1	7
76	Photoinduced bleaching of amorphous film Ge40S60. <i>Journal of Materials Science Letters</i> , 1986, 5, 1125-1128.	0.5	6
77	Relaxation of Alkali Glass Exposed to an Electron Beam. <i>Mikrochimica Acta</i> , 2004, 145, 49-52.	5.0	6
78	Growth and characterization of GaN:Mn layers by MOVPE. <i>Journal of Crystal Growth</i> , 2008, 310, 5025-5027.	1.5	6
79	As-cast anisotropy of amorphous CoFeCrBSi and FeNbCuSiB. <i>Journal of Magnetism and Magnetic Materials</i> , 1992, 112, 359-362.	2.3	5
80	Analysis of alkali-silicate glasses by electron probe analysis. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2003, 58, 741-744.	2.9	5
81	Pinning performance of (Nd,Eu,Gd)-123 superconductors: Comparison of melt-textured pellet and single crystal. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2008, 151, 25-30.	3.5	5
82	In-situ doping and implantation of GaN layers with Mn. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2009, 6, S646-S649.	0.8	5
83	In-depth distribution of elements and chemical bonds in the surface region of calcium-doped diamond-like carbon films. <i>Applied Surface Science</i> , 2021, 539, 148250.	6.1	5
84	Martensitic Transformation in Co-Based Ferromagnetic Shape Memory Alloy. <i>Acta Physica Polonica A</i> , 2012, 122, 475-477.	0.5	5
85	Tunable resonantly pumped Er:GGAG laser. <i>Laser Physics</i> , 2022, 32, 015802.	1.2	5
86	Structural and magnetic properties of BaCo Ti Fe12â~â~O19 films. <i>Journal of Magnetism and Magnetic Materials</i> , 1996, 157-158, 295-296.	2.3	4
87	Infrared and photoelectron spectroscopy of semi-insulating silicon layers. <i>Journal of Non-Crystalline Solids</i> , 1998, 227-230, 911-915.	3.1	4
88	Magnetoelastic properties of stress/field annealed Fe80Cr2B14Si14 amorphous alloy. <i>Journal of Magnetism and Magnetic Materials</i> , 1999, 196-197, 262-263.	2.3	4
89	X-Ray Emission from Thin Films on a Substrate - Calculation and Experiments. <i>Mikrochimica Acta</i> , 2002, 139, 179-184.	5.0	4
90	The preparation of oriented samples of ferromagnetic shape memory alloy CoNiAl. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010, 7, 012013.	0.6	4

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91	Effect of W and Mo co-doping on the photo- and thermally stimulated luminescence and defects creation processes in Gd ₃ (Ga,Al)5O ₁₂ :Ce crystals. Optical Materials, 2021, 114, 110923.	3.6	4
92	Potassium Migration in Silica Glass During Electron Beam Irradiation. , 1998, , 269-272.		4
93	Er:GGAG crystal temperature influence on spectroscopic and laser properties. Optical Materials Express, 2020, 10, 1249.	3.0	4
94	Heavy doping with Sn of GaAs layers grown by molecular beam epitaxy for non-alloyed ohmic contacts. European Physical Journal D, 1988, 38, 224-230.	0.4	3
95	Magnetism in a UNi ₂ /3Rh ₁ /3Al single crystal. Philosophical Magazine, 2003, 83, 1613-1633.	1.6	3
96	Bulk study of a DyNiAl single crystal. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E419-E420.	2.3	3
97	Composition of Ti-C:H films obtained by pulsed and continuous magnetron sputtering. Surface and Coatings Technology, 2005, 200, 620-624.	4.8	3
98	Study of Yb-Doped CoSb ₃ Thermoelectric Thin Films Prepared by Laser. Applied Mechanics and Materials, 2015, 749, 46-50.	0.2	3
99	Electron Beam Induced Migration of Alkaline Ions in Silica Glass. , 1996, , 339-347.		3
100	Phase-transfer catalysis. IV. Localization of reaction sites in supported catalysts. Reactive Polymers, Ion Exchangers, Sorbents, 1988, 9, 81-89.	0.0	2
101	Effect of the thermal treatment on the superconductivity behaviour of the YBa ₂ Cu ₃ O _{7-x} phase. Physica C: Superconductivity and Its Applications, 1988, 153-155, 375-376.	1.2	2
102	Depth distribution of x-rays in electron microprobe analysis. European Physical Journal D, 1991, 41, 1281-1287.	0.4	2
103	Correction procedure for the electron microprobe analysis of porous materials. Mikrochimica Acta, 1994, 117, 87-93.	5.0	2
104	Ga _{1-x} In _x Sb - MOVPE growth and thermodynamic model. Semiconductor Science and Technology, 2001, 16, 759-762.	2.0	2
105	Microanalysis of Glass Surfaces after Thermal Exposure. Mikrochimica Acta, 2006, 155, 147-150.	5.0	2
106	Silver-doped metal layers for medical applications. Laser Physics, 2014, 24, 085602.	1.2	2
107	Tm:GGAG crystal for 2¼m tunable diode-pumped laser. , 2016, , .		2
108	Irradiation of potassium-silicate glass surfaces: XPS and REELS study. Surface and Interface Analysis, 2016, 48, 543-546.	1.8	2

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109	Potassium-silicate glass foil irradiated with electrons – Asymmetry in migration and space distribution given by the elastic scattering of electrons on potassium atoms. Nuclear Instruments & Methods in Physics Research B, 2021, 502, 150-156.	1.4	2
110	Tm, Ho:GGAG crystal for 2.1 μ m tunable diode-pumped laser. , 2019, , .		2
111	The Investigation of Silicate Systems and Minerals by the Electron Microprobe Analyser. Crystal Research and Technology: Journal of Experimental and Industrial Crystallography, 1972, 7, 711-717.	0.3	1
112	PROPERTIES OF CuO BASED SUPERCONDUCTORS. International Journal of Modern Physics B, 1987, 01, 1021-1023.	2.0	1
113	CN x films deposited using combined deposition method: pulsed laser deposition in the RF discharged nitrogen gas. , 2001, , .		1
114	Bis(tetraethylammonium) hydrogensulfate dihydrogenphosphate at 292 and 150 K. Acta Crystallographica Section C: Crystal Structure Communications, 2003, 59, o120-o123.	0.4	1
115	Silver doped metal layers for medical applications. Journal of Physics: Conference Series, 2014, 497, 012021.	0.4	1
116	GaN:Co epitaxial layers grown by MOVPE. Journal of Crystal Growth, 2015, 414, 62-68.	1.5	1
117	Tunable diode-pumped Er:GGAG laser. , 2016, , .		1
118	Nanocrystalline ferroelectric BaTiO ₃ /Pt/fused silica for implants synthesized by pulsed laser deposition method. Laser Physics, 2017, 27, 095601.	1.2	1
119	Silver-Doped Layers of Implants Prepared by Pulsed Laser Deposition. Journal of Computer and Communications, 2013, 01, 59-61.	0.9	1
120	Experimental Verification of Theoretical Models Simulating the Temperature Increase in EPMA of Glass. , 1996, , 325-332.		1
121	Microprobe analysis of the samples from regolith luna 16. Crystal Research and Technology: Journal of Experimental and Industrial Crystallography, 1973, 8, 1287-1296.	0.3	0
122	On the FMR linewidth in calcium-doped YIG films. Journal of Magnetism and Magnetic Materials, 1995, 140-144, 2121-2122.	2.3	0
123	Biodegradation of phenol by a mixed culture entrapped in SiO ₂ films. Progress in Biotechnology, 1996, , 757-761.	0.2	0
124	Hydroxyapatite and ZrO ₂ biocompatible coatings fabricated by pulsed laser deposition. , 2006, , .		0
125	Investigation of phases obtained from the Ce ₂₀ Ru ₆₀ Si ₂₀ composition. Journal of Alloys and Compounds, 2008, 466, 17-25.	5.5	0
126	Influence of Sm and Yb Pollution on Superconducting Properties of YBCO Bulk Superconductors. Acta Physica Polonica A, 2014, 126, 358-359.	0.5	0

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127	Xenon Focused Ion Beam in the Shape Memory Alloys Investigation - The Case of NiTi and CoNiAl. Microscopy and Microanalysis, 2014, 20, 334-335.	0.4	0
128	Magnetic domains and twin microstructure of single crystal Ni-Mn-Ga exhibiting magnetic shape memory effect. , 2015, , .		0
129	Temperature influence on diode pumped Yb:GGAG laser. Proceedings of SPIE, 2017, , .	0.8	0
130	Diode-pumped laser and spectroscopic properties of Yb,Ho:GGAG at 2 μm and 3 μm . Laser Physics Letters, 2020, 17, 035801.	1.4	0
131	Tm:GGAG disordered garnet crystal for 2 μm diode-pumped solid-state laser. Laser Physics Letters, 2021, 18, 115802.	1.4	0
132	Spectroscopic and Lasing Properties of Er:GGAG Crystal in Temperature Range 80 to 340 K. , 2019, , .		0
133	2.94 μm and 2.1 μm tunable laser based on Yb,Ho-doped GGAG crystal. , 2019, , .		0