

Jan Kuriplach

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7042367/publications.pdf>

Version: 2024-02-01

109
papers

1,750
citations

304368

22
h-index

315357

38
g-index

111
all docs

111
docs citations

111
times ranked

1366
citing authors

#	ARTICLE	IF	CITATIONS
1	Defects in virgin and N ⁺ -implanted ZnO single crystals studied by positron annihilation, Hall effect, and deep-level transient spectroscopy. <i>Physical Review B</i> , 2006, 74, .	1.1	135
2	Identification of Zn-vacancy-hydrogen complexes in ZnO single crystals: A challenge to positron annihilation spectroscopy. <i>Physical Review B</i> , 2009, 79, .	1.1	117
3	Thermal stability of ultrafine grained copper. <i>Physical Review B</i> , 2002, 65, .	1.1	106
4	Evaluation of some basic positron-related characteristics of SiC. <i>Physical Review B</i> , 1996, 54, 2512-2517.	1.1	89
5	Defect studies of nanocrystalline zirconia powders and sintered ceramics. <i>Physical Review B</i> , 2010, 81, .	1.1	68
6	Vacancies and vacancy-oxygen complexes in silicon: Positron annihilation with core electrons. <i>Physical Review B</i> , 1998, 58, 10475-10483.	1.1	55
7	Structure and strength of ~110° tilt grain boundaries in bcc Fe: An atomistic study. <i>Computational Materials Science</i> , 2010, 49, 419-429.	1.4	55
8	Improved generalized gradient approximation for positron states in solids. <i>Physical Review B</i> , 2014, 89, .	1.1	51
9	Defect studies of ZnO single crystals electrochemically doped with hydrogen. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	50
10	Positron affinity in semiconductors: Theoretical and experimental studies. <i>Physical Review B</i> , 1999, 59, 1948-1955.	1.1	48
11	Microstructure and Room Temperature Mechanical Properties of Different 3 and 4 Element Medium Entropy Alloys from HfNbTaTiZr System. <i>Entropy</i> , 2019, 21, 114.	1.1	46
12	Crystal field in rare earth intermetallics with CsCl structure. <i>Physica B: Condensed Matter</i> , 1995, 205, 353-364.	1.3	39
13	Positron confinement in embedded lithium nanoclusters. <i>Physical Review B</i> , 2002, 65, .	1.1	38
14	Proposed Parameter-Free Model for Interpreting the Measured Positron Annihilation Spectra of Materials Using a Generalized Gradient Approximation. <i>Physical Review Letters</i> , 2015, 114, 147401.	2.9	38
15	Helium behavior in ferritic/martensitic steels irradiated in spallation target. <i>Journal of Nuclear Materials</i> , 2015, 456, 382-388.	1.3	37
16	Calculation of crystal-field parameters in the RNi5 (R=rare earth) system. <i>Physical Review B</i> , 1994, 50, 2085-2089.	1.1	33
17	Characterization of helium implanted Fe-Cr alloys by means of positron annihilation methods. <i>Journal of Nuclear Materials</i> , 2014, 450, 54-58.	1.3	33
18	Vacancy-solute complexes and their clusters in iron. <i>Applied Surface Science</i> , 2006, 252, 3303-3308.	3.1	32

#	ARTICLE	IF	CITATIONS
19	Characterization of the SiO ₂ /Si interface by positron annihilation spectroscopy. Physical Review B, 2002, 66, .	1.1	28
20	Spark plasma sintering of gas atomized high-entropy alloy HfNbTaTiZr. Journal of Materials Research, 2018, 33, 3247-3257.	1.2	26
21	Positron energy levels in semiconductors. Physical Review B, 2000, 61, 15848-15853.	1.1	24
22	Angle-Resolved Spectroscopy of Positronium Emission from a Cu(110) Surface. Physical Review Letters, 2016, 117, 216402.	2.9	24
23	Activities towards p-type doping of ZnO. Journal of Physics: Conference Series, 2011, 265, 012002.	0.3	23
24	Annealing process in quenched Al-Sn alloys: A positron annihilation study. Physical Review B, 2005, 71, .	1.1	21
25	Coincidence Doppler broadening study of Eurofer 97 irradiated in spallation environment. Journal of Nuclear Materials, 2015, 458, 350-354.	1.3	21
26	Comparative characterization of differently grown ZnO single crystals by positron annihilation and Hall effect. Superlattices and Microstructures, 2007, 42, 259-264.	1.4	19
27	Positron annihilation study of vacancies in Fe-Al based alloys. Intermetallics, 2010, 18, 592-598.	1.8	19
28	Characterization of microstructural defects in melt grown ZnO single crystals. Journal of Applied Physics, 2011, 109, .	1.1	19
29	On the empirical determination of positron trapping coefficient at nano-scale helium bubbles in steels irradiated in spallation target. Journal of Nuclear Materials, 2018, 504, 277-280.	1.3	18
30	Positron lifetimes in ZnO single crystals. Vacuum, 2007, 81, 1314-1317.	1.6	17
31	Electronic structure and crystal field in REMg and RERh (RE = rare earth) intermetallics. Physica B: Condensed Matter, 1993, 183, 25-32.	1.3	16
32	Positron-defect interactions in complex systems. Applied Surface Science, 2002, 194, 61-70.	3.1	16
33	Positron annihilation in three zirconia polymorphs. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3831-3834.	0.8	16
34	Ab initio calculation of crystal field parameters in several RT/sub 5/ (R=rare earth; T=Co, Ni) compounds. IEEE Transactions on Magnetics, 1994, 30, 1036-1038.	1.2	14
35	Density functional calculation of the crystal field interaction in rare earth cuprates. Physica C: Superconductivity and Its Applications, 1998, 301, 23-28.	0.6	14
36	Gradient correction scheme for bulk and defect positron states in materials: New developments. Journal of Physics: Conference Series, 2014, 505, 012040.	0.3	14

#	ARTICLE	IF	CITATIONS
37	Calculation of crystal-field parameters in rare-earth metals. Journal of Magnetism and Magnetic Materials, 1992, 104-107, 1499-1500.	1.0	13
38	Positron characteristics of various SiO ₂ polymorphs. Applied Surface Science, 2002, 194, 84-88.	3.1	12
39	Vacancy-solute complexes in aluminum. Applied Surface Science, 2006, 252, 3285-3289.	3.1	12
40	Some aspects of the interactions of orthopositronium with perfect and defect surfaces of insulating materials. Journal of Radioanalytical and Nuclear Chemistry, 1996, 210, 293-308.	0.7	11
41	Positron annihilation Investigations of defects in copper alloys selected for nuclear fusion technology. Fusion Engineering and Design, 2004, 70, 141-153.	1.0	11
42	Characterization of ZnO nanostructures: A challenge to positron annihilation spectroscopy and other methods. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2556-2560.	0.8	11
43	Structural characterization of H plasma-doped ZnO single crystals by positron annihilation spectroscopies. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2415-2425.	0.8	10
44	Study of the Mg-Cd system by positron annihilation methods. Journal of Physics Condensed Matter, 1998, 10, 6573-6584.	0.7	9
45	Characterization of rf-sputtered platinum films by positron annihilation spectroscopy. Physical Review B, 2000, 62, 5199-5206.	1.1	9
46	Positron Annihilation Study of Nanocrystalline Ni ₃ Al: Simulations and Measurements. Materials Science Forum, 2001, 363-365, 94-96.	0.3	9
47	Positron annihilation in vacancies at grain boundaries in metals. Applied Surface Science, 2008, 255, 128-131.	3.1	9
48	Ab initio calculations of crystal field in MA ₂ (M ²⁺ → La, Y, Sc) Laves phases. Journal of Magnetism and Magnetic Materials, 1995, 140-144, 1117-1118.	1.0	8
49	Hydrogen implantation effect in copper alloys selected for ITER investigated by positron annihilation spectroscopy. Nuclear Fusion, 2004, 44, 93-97.	1.6	8
50	Defects in yttria-stabilised zirconia: a positron annihilation study. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3847-3850.	0.8	8
51	Grain boundary segregation in low Cr Fe-Cr alloys: The effect of radiation induced vacancies studied by metropolis Monte Carlo simulations. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1679-1683.	0.6	8
52	First-Principles Study of the Impact of Grain Boundary Formation in the Cathode Material LiFePO ₄ . Condensed Matter, 2019, 4, 80.	0.8	8
53	Positron Annihilation in Ni ₃ Al: Theory and Experiment. Materials Science Forum, 2001, 363-365, 210-212.	0.3	7
54	Theoretical Study of Positron Annihilation in Nanoclusters in Al-Cu System. Materials Science Forum, 2004, 445-446, 132-134.	0.3	7

#	ARTICLE	IF	CITATIONS
55	Defect Behaviour in Yttria-Stabilised Zirconia Nanomaterials Studied by Positron Annihilation Techniques. Defect and Diffusion Forum, 0, 331, 181-199.	0.4	7
56	Mössbauer Spectroscopy of Triphylite (LiFePO ₄) at Low Temperatures. Condensed Matter, 2019, 4, 86.	0.8	7
57	Comment on "Identification of Lattice Vacancies on the Two Sublattices of SiC": Physical Review Letters, 2003, 91, 199601; discussion 199602.	2.9	6
58	Characterization of a SiC/SiC composite by X-ray diffraction, atomic force microscopy and positron spectroscopies. Applied Surface Science, 2006, 252, 3342-3351.	3.1	6
59	Positron annihilation at grain boundaries in metals. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3461-3464.	0.8	6
60	Investigation of hydrogen interaction with defects in zirconia. Journal of Physics: Conference Series, 2010, 225, 012035.	0.3	6
61	Positron annihilation study of yttria-stabilized zirconia nanopowders containing Cr ₂ O ₃ additive. Journal of Physics: Conference Series, 2011, 265, 012020.	0.3	6
62	Advanced characterization of lithium battery materials with positrons. Journal of Physics: Conference Series, 2017, 791, 012016.	0.3	6
63	Calculation of the crystal-field parameters, electric field gradient and magnetic moments in PrNi ₅ . Journal of Physics Condensed Matter, 1993, 5, 8417-8424.	0.7	5
64	Study of Point Defects in Silicon by Means of Positron Annihilation with Core Electrons. Materials Science Forum, 1997, 255-257, 605-607.	0.3	5
65	Characterization of defects in a martensitic CuAlNi shape-memory alloy. Applied Physics A: Materials Science and Processing, 2005, 81, 1039-1044.	1.1	5
66	Hyperfine interactions in lutetium iron garnet. Journal of Applied Physics, 2006, 99, 08M903.	1.1	5
67	Simulation of positron annihilation response to mechanical deformation of nanostructured Ni ₃ Al. Applied Surface Science, 2008, 255, 157-159.	3.1	5
68	Anisotropy of the hyperfine enhanced nuclear ferromagnet PrNi ₅ . European Physical Journal D, 1996, 46, 2215-2216.	0.4	4
69	Slow Positron Beam Investigations of Defects Caused by B ⁺ Implantation into Epitaxial 6H-SiC. Materials Science Forum, 2004, 445-446, 36-38.	0.3	4
70	Basic positron properties of oxides: A computational study. Radiation Physics and Chemistry, 2007, 76, 101-105.	1.4	4
71	Sintering of yttria-stabilized zirconia nanopowders studied by positron annihilation spectroscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2582-2584.	0.8	4
72	Structure of Defects, their Interactions and Positron Characteristics in Fe ₃ Al system. Physics Procedia, 2012, 35, 69-74.	1.2	4

#	ARTICLE	IF	CITATIONS
73	Comparison of Grain Boundary Structure in Metals and Semiconductors as Probed by Positrons. Acta Physica Polonica A, 2014, 125, 722-725.	0.2	4
74	Parameter-Free Gradient Correction for Positron States in Oxides. Defect and Diffusion Forum, 2017, 373, 35-40.	0.4	4
75	¹⁶⁰ Tb nuclear orientation in yttrium single crystal. Hyperfine Interactions, 1987, 34, 339-342.	0.2	3
76	Temperature dependence of ⁵⁷ Fe hyperfine field in Gd: YIG. Hyperfine Interactions, 1990, 59, 493-496.	0.2	3
77	CALCULATION OF ELECTRIC FIELD GRADIENT AND CRYSTAL FIELD PARAMETERS IN RARE EARTH METALS. International Journal of Modern Physics B, 1993, 07, 609-613.	1.0	3
78	Positron lifetime calculations for stacking fault tetrahedra in copper. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3514-3517.	0.8	3
79	Structure and Positron Characteristics of Basic Open Volume Defects in Zirconia. Materials Science Forum, 0, 607, 125-127.	0.3	3
80	Quenched-in vacancies in Fe-Al alloys. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2367-2369.	0.8	3
81	Positron Annihilation at Planar Defects in Oxides. Materials Science Forum, 0, 733, 240-244.	0.3	3
82	Nuclear orientation study of ¹⁶⁰ Tb impurity in gadolinium single crystal. Hyperfine Interactions, 1990, 59, 497-500.	0.2	2
83	Nuclear orientation study of ¹⁶⁰ Tb impurity in yttrium single crystal. Hyperfine Interactions, 1990, 59, 501-504.	0.2	2
84	Simulation of Positron Characteristics in Nanocrystalline Materials. Materials Research Society Symposia Proceedings, 2000, 634, 381.	0.1	2
85	Magnetic Anisotropy of PrNi ₅ Single Crystal at Millikelvins. Journal of Low Temperature Physics, 2000, 120, 435-448.	0.6	2
86	Calculation of Magnetic Properties and Specific Heat for the Nuclear Enhanced Ferromagnet PrNi ₅ . Journal of Low Temperature Physics, 2000, 120, 401-434.	0.6	2
87	Investigation of Defects in Copper Alloys Selected for Nuclear Fusion Technology. Materials Science Forum, 2004, 445-446, 183-185.	0.3	2
88	Characterisation of Defects in Simulated Nanostructures. Materials Science Forum, 2004, 445-446, 204-206.	0.3	2
89	Defects in N ⁺ -ion-implanted ZnO single crystals studied by positron annihilation and Hall effect. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3642-3645.	0.8	2
90	Doppler broadening of positron annihilation radiation as a probe for the anisotropy of free-volume-holes in polymers. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3755-3758.	0.8	2

#	ARTICLE	IF	CITATIONS
91	Vacancy-Hydrogen Complexes in ZnO. Materials Science Forum, 0, 607, 117-121.	0.3	2
92	Characterization of point defects in yttria stabilized zirconia single crystals. Journal of Physics: Conference Series, 2011, 262, 012038.	0.3	2
93	Quenched-in vacancies in Fe-Al alloys. Journal of Physics: Conference Series, 2011, 262, 012039.	0.3	2
94	Defects in the high entropy alloy HfNbTaTiZr prepared by spark plasma sintering. AIP Conference Proceedings, 2019, , .	0.3	2
95	Magnetic behaviour of Tb impurities in Gd and Y single crystals: a nuclear orientation study. Hyperfine Interactions, 1993, 78, 501-504.	0.2	1
96	Density functional theory of the crystal field in dioxides. European Physical Journal D, 1996, 46, 1929-1930.	0.4	1
97	Calculation Of Positron Characteristics In Silicon Carbide. Materials Research Society Symposia Proceedings, 2000, 640, 1.	0.1	1
98	Hyperfine interaction of ¹⁵⁵ Gd in gadolinium iron garnet. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 763-765.	1.0	1
99	Characterization of various crystalline structures at the SiO ₂ /Si interface by positrons. Radiation Physics and Chemistry, 2007, 76, 195-199.	1.4	1
100	Investigation of Interaction of Hydrogen with Defects in Zirconia. Materials Research Society Symposia Proceedings, 2009, 1216, 1.	0.1	1
101	Quenched-in vacancies in Fe ₃ Al based alloys: a positron annihilation study. Journal of Physics: Conference Series, 2011, 265, 012016.	0.3	1
102	Study of Rechargeable Batteries Using Advanced Spectroscopic and Computational Techniques. Condensed Matter, 2021, 6, 26.	0.8	1
103	Comments on time-differential perturbed angular correlation functions for static axial electric quadrupole interaction. Hyperfine Interactions, 1994, 88, 13-18.	0.2	0
104	Tb magnetic moment behaviour in a Gd single crystal: nuclear orientation study. Journal of Physics Condensed Matter, 1998, 10, 7467-7474.	0.7	0
105	Hyperfine enhanced nuclear magnetism. Physica B: Condensed Matter, 2000, 284-288, 1696-1697.	1.3	0
106	Hyperfine interactions of ¹⁵⁵ Gd and ¹⁵⁷ Gd in gadolinium iron garnet. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1689-E1690.	1.0	0
107	Positron annihilation in structural vacancies in Al ϵ -rich NiAl alloys. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 3534-3537.	0.8	0
108	Simulation of properties of positrons trapped at Cu nanoparticles in Fe matrix. Journal of Physics: Conference Series, 2011, 265, 012021.	0.3	0

#	ARTICLE	IF	CITATIONS
109	Electronic structure probed with positronium: Theoretical viewpoint. AIP Conference Proceedings, 2018, , .	0.3	0