

Vincenzo Guidi

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2263516/publications.pdf>

Version: 2024-02-01

91
papers

1,450
citations

304743

22
h-index

377865

34
g-index

93
all docs

93
docs citations

93
times ranked

960
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Efficiency Volume Reflection of an Ultrarelativistic Proton Beam with a Bent Silicon Crystal. <i>Physical Review Letters</i> , 2007, 98, 154801.	7.8	123
2	Preparation and Characterization of Nanostructured Titania Thick Films. <i>Advanced Materials</i> , 1999, 11, 943-946.	21.0	80
3	Metal Sulfides as Sensing Materials for Chemoresistive Gas Sensors. <i>Sensors</i> , 2016, 16, 296.	3.8	76
4	A novel method for the preparation of nanosized tio2 thin films. <i>Advanced Materials</i> , 1996, 8, 334-337.	21.0	70
5	Deflection of 400 GeV beam with bent silicon crystals at the CERN Super Proton Synchrotron. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2008, 11, .	1.8	50
6	Microstructural characterization of a titanium-tungsten oxide gas sensor. <i>Journal of Materials Research</i> , 1997, 12, 793-798.	2.6	48
7	Unpinning of Fermi level in nanocrystalline semiconductors. <i>Applied Physics Letters</i> , 2004, 84, 4158-4160.	3.3	46
8	High-Efficiency Deflection of High-Energy Protons through Axial Channeling in a Bent Crystal. <i>Physical Review Letters</i> , 2008, 101, 164801.	7.8	45
9	Self-standing bent silicon crystals for very high efficiency Laue lens. <i>Experimental Astronomy</i> , 2011, 31, 45-58.	3.7	38
10	Radiation generated by single and multiple volume reflection of ultrarelativistic electrons and positrons in bent crystals. <i>Physical Review A</i> , 2012, 86, .	2.5	38
11	DYNECHARM++: a toolkit to simulate coherent interactions of high-energy charged particles in complex structures. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013, 309, 124-129.	1.4	36
12	Chemoresistive Gas Sensors for the Detection of Colorectal Cancer Biomarkers. <i>Sensors</i> , 2014, 14, 18982-18992.	3.8	33
13	Development of MEMS MOS gas sensors with CMOS compatible PECVD inter-metal passivation. <i>Sensors and Actuators B: Chemical</i> , 2019, 292, 225-232.	7.8	31
14	High diffraction efficiency at hard X-ray energy in a silicon crystal bent by indentation. <i>Journal of Applied Crystallography</i> , 2010, 43, 1519-1521.	4.5	29
15	Modelling Soil Water Content in a Tomato Field: Proximal Gamma Ray Spectroscopy and Soil "Crop System Models. <i>Agriculture (Switzerland)</i> , 2018, 8, 60.	3.1	28
16	Air Stable Nickel-Decorated Black Phosphorus and Its Room-Temperature Chemiresistive Gas Sensor Capabilities. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 44711-44722.	8.0	26
17	Double volume reflection of a proton beam by a sequence of two bent crystals. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2008, 658, 109-111.	4.1	25
18	Proposal for a Laue lens with quasi-mosaic crystalline tiles. <i>Journal of Applied Crystallography</i> , 2011, 44, 1255-1258.	4.5	25

#	ARTICLE	IF	CITATIONS
19	Thick-film gas sensors based on vanadium-titanium oxide powders prepared by sol-gel synthesis. <i>Journal of the European Ceramic Society</i> , 2004, 24, 1409-1413.	5.7	24
20	Vanadium and tantalum-doped titanium oxide (TiTaV): a novel material for gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2005, 108, 89-96.	7.8	24
21	The 'quasi-mosaic' effect in crystals and its applications in modern physics. <i>Journal of Applied Crystallography</i> , 2015, 48, 977-989.	4.5	24
22	Nanostructured SmFeO ₃ Gas Sensors: Investigation of the Gas Sensing Performance Reproducibility for Colorectal Cancer Screening. <i>Sensors</i> , 2020, 20, 5910.	3.8	24
23	Apparatus to study crystal channeling and volume reflection phenomena at the SPS H8 beamline. <i>Review of Scientific Instruments</i> , 2008, 79, 023303.	1.3	23
24	Experimental analysis and modeling of self-standing curved crystals for focusing of X-rays. <i>Meccanica</i> , 2013, 48, 1875-1882.	2.0	22
25	Resonant photoactivation of cadmium sulfide and its effect on the surface chemical activity. <i>Applied Physics Letters</i> , 2014, 104, 222102.	3.3	20
26	Self-standing quasi-mosaic crystals for focusing hard X-rays. <i>Review of Scientific Instruments</i> , 2013, 84, 053110.	1.3	19
27	RADCHARM++: A C++ routine to compute the electromagnetic radiation generated by relativistic charged particles in crystals and complex structures. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015, 355, 44-48.	1.4	18
28	Strengthening of Wood-like Materials via Densification and Nanoparticle Intercalation. <i>Nanomaterials</i> , 2020, 10, 478.	4.1	17
29	Curved crystals for high-resolution focusing of X and gamma rays through a Laue lens. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013, 309, 249-253.	1.4	15
30	Proposal for a Laue lens relying on hybrid quasi-mosaic curved crystals. <i>Astronomy and Astrophysics</i> , 2013, 560, A58.	5.1	15
31	High diffraction efficiency with hard X-rays through a thick silicon crystal bent by carbon fiber deposition. <i>Journal of Applied Crystallography</i> , 2014, 47, 1762-1764.	4.5	15
32	Photo-Induced Unpinning of Fermi Level in WO ₃ . <i>Sensors</i> , 2005, 5, 594-603.	3.8	14
33	On the observation of multiple volume reflection from different planes inside one bent crystal. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	14
34	AniCryDe: calculation of elastic properties in silicon and germanium crystals. <i>Journal of Applied Crystallography</i> , 2015, 48, 943-949.	4.5	14
35	Study and characterization of bent crystals for Laue lenses. <i>Experimental Astronomy</i> , 2014, 38, 401-416.	3.7	13
36	Highly reproducible quasi-mosaic crystals as optical components for a Laue lens. <i>Experimental Astronomy</i> , 2014, 37, 1-10.	3.7	13

#	ARTICLE	IF	CITATIONS
37	Design study of a Laue lens for nuclear medicine. <i>Journal of Applied Crystallography</i> , 2015, 48, 125-137.	4.5	13
38	Design of a Metal-Oxide Solid Solution for Sub-ppm H ₂ Detection. <i>ACS Sensors</i> , 2022, 7, 573-583.	7.8	13
39	Ordered stacking of crystals with adjustable curvatures for hard X- and $\hat{\Gamma}^3$ -ray broadband focusing. <i>Journal of Applied Crystallography</i> , 2013, 46, 953-959.	4.5	12
40	Nanostructured Chemoresistive Sensors for Oncological Screening and Tumor Markers Tracking: Single Sensor Approach Applications on Human Blood and Cell Samples. <i>Sensors</i> , 2020, 20, 1411.	3.8	12
41	Investigation on Sensing Performance of Highly Doped Sb/SnO ₂ . <i>Sensors</i> , 2022, 22, 1233.	3.8	12
42	High-efficiency focusing of hard X-rays exploiting the quasi-mosaic effect in a bent germanium crystal. <i>Journal of Applied Crystallography</i> , 2014, 47, 799-802.	4.5	11
43	Homogeneous self-standing curved monocrystals, obtained using sandblasting, to be used as manipulators of hard X-rays and charged particle beams. <i>Journal of Applied Crystallography</i> , 2017, 50, 145-151.	4.5	11
44	Nanostructured (Sn,Ti, Nb)O ₂ Solid Solution for Hydrogen Sensing. <i>Materials Research Society Symposia Proceedings</i> , 2006, 915, 1.	0.1	10
45	A study of heat distribution and dissipation in a micromachined chemoresistive gas sensor. <i>Sensors and Actuators B: Chemical</i> , 2011, 153, 409-414.	7.8	10
46	Photo-activation of Cadmium Sulfide Films for Gas Sensing. <i>Procedia Engineering</i> , 2014, 87, 140-143.	1.2	10
47	Ion implantation for manufacturing bent and periodically bent crystals. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	10
48	Design and validation of a novel operando spectroscopy reaction chamber for chemoresistive gas sensors. <i>Sensors and Actuators B: Chemical</i> , 2021, 341, 130012.	7.8	10
49	Crystalline Microporous Organosilicates with Reversed Functionalities of Organic and Inorganic Components for Room-Temperature Gas Sensing. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 24812-24820.	8.0	9
50	A joint thermal-electrical analysis of void formation effects on concentrator silicon solar cells solder layer. <i>Solar Energy Materials and Solar Cells</i> , 2013, 111, 133-140.	6.2	8
51	Quasi-mosaicity of (311) planes in silicon and its use in a Laue lens with high-focusing power. <i>Experimental Astronomy</i> , 2014, 38, 417-431.	3.7	8
52	Neoplasms and metastasis detection in human blood exhalations with a device composed by nanostructured sensors. <i>Sensors and Actuators B: Chemical</i> , 2018, 271, 203-214.	7.8	8
53	Elucidating the Ambient Stability and Gas Sensing Mechanism of Nickel-Decorated Phosphorene for NO ₂ Detection: A First-Principles Study. <i>ACS Omega</i> , 2022, 7, 9808-9817.	3.5	8
54	Calculation of diffraction efficiency for curved crystals with arbitrary curvature radius. <i>Journal of Applied Crystallography</i> , 2013, 46, 415-420.	4.5	7

#	ARTICLE	IF	CITATIONS
55	Investigation of the humidity effects on SnO ₂ -based sensors in CO detection. Materials Research Society Symposia Proceedings, 2006, 915, 1.	0.1	6
56	Genetic algorithm to design Laue lenses with optimal performance for focusing hard X- and γ -rays. Astronomy and Astrophysics, 2014, 570, A17.	5.1	6
57	Manufacturing of advanced bent crystals for Laue Optics for Gamma ObservationS (LOGOS). Nuclear Instruments & Methods in Physics Research B, 2015, 355, 297-300.	1.4	6
58	High-efficiency diffraction and focusing of X-rays through asymmetric bent crystalline planes. Journal of Applied Crystallography, 2015, 48, 297-300.	4.5	6
59	Use of Gas Sensors and FOBT for the Early Detection of Colorectal Cancer. Proceedings (mdpi), 2017, 1, .	0.2	6
60	Gas sensors based on semiconductor oxides: basic aspects onto materials and working principles. Materials Research Society Symposia Proceedings, 2004, 828, 173.	0.1	5
61	Fabrication of quasi-mosaic Ge crystals for the LAUE project. Proceedings of SPIE, 2013, , .	0.8	5
62	Laue lens to focus an X-ray beam for radiation therapy. Journal of Applied Crystallography, 2016, 49, 468-478.	4.5	5
63	X-ray characterization of self-standing bent Si crystal plates for Large Hadron Collider beam extraction. Journal of Applied Crystallography, 2020, 53, 486-493.	4.5	5
64	Quasi-mosaicity as a tool for focusing hard x-rays. Proceedings of SPIE, 2012, , .	0.8	4
65	Stack of quasi-mosaic thin lamellae as a diffracting element for Laue lenses. Experimental Astronomy, 2014, 38, 25-40.	3.7	4
66	Channeling efficiency dependence on bending radius and thermal vibration amplitude of the model for the channeling of high-energy particles in straight and bent crystals implemented in Geant4. Nuclear Instruments & Methods in Physics Research B, 2015, 355, 387-389.	1.4	4
67	Simulation of orientational effects in crystals with structural defects through DYNECHARM++. Nuclear Instruments & Methods in Physics Research B, 2015, 355, 365-368.	1.4	4
68	Thick self-standing bent crystals as optical elements for a Laue lens for applications in astrophysics. Experimental Astronomy, 2018, 46, 309-321.	3.7	4
69	Silicon crystalline undulator prototypes: Manufacturing and x-ray characterization. Physical Review Accelerators and Beams, 2019, 22, .	1.6	4
70	Polarized electron sources. , 2000, 127, 455-462.		3
71	Chemoresistive Nanostructured Sensors for Tumor Pre-Screening. Proceedings (mdpi), 2019, 14, 29.	0.2	3
72	First-Principles Study of Electronic Conductivity, Structural and Electronic Properties of Oxygen-Vacancy-Defected SnO ₂ . Journal of Nanoscience and Nanotechnology, 2021, 21, 2633-2640.	0.9	3

#	ARTICLE	IF	CITATIONS
73	Stack of curved crystals as optical component for hard x- and gamma-ray focusing through a Laue lens. Proceedings of SPIE, 2012, , .	0.8	2
74	High-energy e^+e^- spectrometer via coherent interaction in a bent crystal. Astroparticle Physics, 2018, 97, 27-32.	4.3	2
75	Structure and morphology of surface of silicon crystals to be applied for channeling at relativistic energies. Nuclear Instruments & Methods in Physics Research B, 2006, 249, 903-906.	1.4	1
76	Origin of quasi-mosaic effect for symmetric skew planes in a silicon or germanium plate. Journal of Applied Crystallography, 2016, 49, 1810-1813.	4.5	1
77	Glyphosate Detection: An Innovative Approach by Using Chemoresistive Gas Sensors. Proceedings (mdpi), 2018, 2, 910.	0.2	1
78	A New Method to Prepare Few-Layers of Nanoclusters Decorated Graphene: Nb ₂ O ₅ /Graphene and Its Gas Sensing Properties. Proceedings (mdpi), 2018, 2, .	0.2	1
79	Explosive evaporation of Rb or K clusters by low-power laser radiation in the presence of excited atoms. Proceedings of SPIE, 2007, , .	0.8	0
80	<title>Experimental apparatus to study crystal channeling in an external SPS beamline</title>. , 2007, , .		0
81	Publisher's Note: Radiation generated by single and multiple volume reflection of ultrarelativistic electrons and positrons in bent crystals [Phys. Rev. A86, 042903 (2012)]. Physical Review A, 2012, 86, .	2.5	0
82	Bent crystals as high-reflectivity components for a Laue lens: basic concepts and experimental techniques. , 2012, , .		0
83	Quasi-mosaicity as a powerful tool to investigate coherent effects. Proceedings of SPIE, 2013, , .	0.8	0
84	Silicon Carbide: A Gas Sensing Material for Selective Detection of SO ₂ . Proceedings (mdpi), 2017, 1, .	0.2	0
85	On the Optimization of a MEMS Device for Chemoresistive Gas Sensors. Proceedings (mdpi), 2017, 1, 746.	0.2	0
86	Sustainable Water Management: Sensors for Precision Farming. Proceedings (mdpi), 2017, 1, 780.	0.2	0
87	Room Temperature Chemoresistive Gas Sensor Based on Organic-Functionalized Graphene Oxide. Proceedings (mdpi), 2017, 1, 805.	0.2	0
88	Eni Carbon Silicates: Innovative Hybrid Materials for Room-Temperature Gas Sensing. Proceedings (mdpi), 2017, 1, 322.	0.2	0
89	Influence of Oxygen Vacancies in Gas Sensors Based on Tin Dioxide Nanostructure: A First Principles Study. Proceedings (mdpi), 2019, 14, .	0.2	0
90	Eni Carbon Silicates: Innovative Hybrid Materials for Room-Temperature Gas Sensing. Proceedings (mdpi), 2017, 1, 1372.	0.2	0

#	ARTICLE	IF	CITATIONS
91	Eni Carbon Silicates: Innovative Hybrid Materials for Room-Temperature Gas Sensing. Proceedings (mdpi), 2017, 1, 1372.	0.2	0