

Maurizio Vannoni

List of Publications by Year in descending order

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Version: 2024-02-01

85
papers

814
citations

471509

17
h-index

580821

25
g-index

85
all docs

85
docs citations

85
times ranked

766
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence of Light Guiding in Ion-Implanted Diamond. <i>Physical Review Letters</i> , 2010, 105, 233903.	7.8	49
2	Iterative algorithm for three flat test. <i>Optics Express</i> , 2007, 15, 6809.	3.4	47
3	Systematic study of defect-related quenching of NV luminescence in diamond with time-correlated single-photon counting spectroscopy. <i>Physical Review B</i> , 2013, 88, .	3.2	40
4	Direct fabrication of three-dimensional buried conductive channels in single crystal diamond with ion microbeam induced graphitization. <i>Diamond and Related Materials</i> , 2009, 18, 870-876.	3.9	37
5	Absolute planarity with three-flat test: an iterative approach with Zernike polynomials. <i>Optics Express</i> , 2008, 16, 340.	3.4	35
6	Viscous Behavior of Fused Silica at Room Temperature. <i>Optics and Photonics News</i> , 2010, 21, 41.	0.5	33
7	Finite element analysis of ion-implanted diamond surface swelling. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010, 268, 2991-2995.	1.4	32
8	Controlled variation of the refractive index in ion-damaged diamond. <i>Diamond and Related Materials</i> , 2010, 19, 428-431.	3.9	28
9	Low-cost accelerometers for physics experiments. <i>European Journal of Physics</i> , 2007, 28, 781-787.	0.6	27
10	Opportunities for Two-Color Experiments in the Soft X-ray Regime at the European XFEL. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2728.	2.5	27
11	Absolute flatness measurement using oblique incidence setup and an iterative algorithm A demonstration on synthetic data. <i>Optics Express</i> , 2014, 22, 3538.	3.4	26
12	Modification of the structure of diamond with MeV ion implantation. <i>Diamond and Related Materials</i> , 2011, 20, 774-778.	3.9	25
13	Complex refractive index variation in proton-damaged diamond. <i>Optics Express</i> , 2012, 20, 19382.	3.4	23
14	Three-flat test with plates in horizontal posture. <i>Applied Optics</i> , 2008, 47, 2133.	2.1	21
15	Speckle interferometry experiments with a digital photcamera. <i>American Journal of Physics</i> , 2004, 72, 906-909.	0.7	18
16	X-ray spectrometer based on a bent diamond crystal for high repetition rate free-electron laser applications. <i>Optics Express</i> , 2017, 25, 2852.	3.4	18
17	Validation of absolute planarity reference plates with a liquid mirror. <i>Metrologia</i> , 2005, 42, 389-393.	1.2	17
18	Long-term deformation at room temperature observed in fused silica. <i>Optics Express</i> , 2010, 18, 5114.	3.4	17

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19	Absolute interferometric characterization of an x-ray mirror surface profile. <i>Metrologia</i> , 2016, 53, 1-6.	1.2	17
20	Relaxation time and viscosity of fused silica glass at room temperature. <i>European Physical Journal E</i> , 2011, 34, 92.	1.6	16
21	Measuring the thickness of soap bubbles with phase-shift interferometry. <i>Optics Express</i> , 2013, 21, 19657.	3.4	16
22	Refractive index variation in a free-standing diamond thin film induced by irradiation with fully transmitted high-energy protons. <i>Scientific Reports</i> , 2017, 7, 385.	3.3	15
23	Large aperture Fizeau interferometer commissioning and preliminary measurements of a long x-ray mirror at European X-ray Free Electron Laser. <i>Review of Scientific Instruments</i> , 2016, 87, 051901.	1.3	13
24	Silicon-on-diamond material by pulsed laser technique. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	12
25	Calibration of absolute planarity flats: generalized iterative approach. <i>Optical Engineering</i> , 2012, 51, 081510.	1.0	12
26	Joint interferometric measurement of planarity and parallelism. <i>Optical Engineering</i> , 2004, 43, 1215.	1.0	11
27	Characterization of a piezo bendable X-ray mirror. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 169-175.	2.4	11
28	The SASE1 X-ray beam transport system. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 692-699.	2.4	11
29	Intraocular lenses with surface aspherization: Interferometric study. <i>Journal of Cataract and Refractive Surgery</i> , 2007, 33, 1624-1630.	1.5	10
30	Fabrication of low loss MOMS resonators for quantum optics experiments. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 085010.	2.6	10
31	Characterization of an X-ray mirror mechanical bender for the European XFEL. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 855-860.	2.4	9
32	Calibration and optimization of an x-ray bendable mirror using displacement-measuring sensors. <i>Optics Express</i> , 2016, 24, 17292.	3.4	9
33	Parallelism error characterization with mechanical and interferometric methods. <i>Optics and Lasers in Engineering</i> , 2007, 45, 719-722.	3.8	8
34	Adaptive x-ray mirror tuning simulation through influence functions™ modeling and error function minimization. <i>Optical Engineering</i> , 2015, 54, 015104.	1.0	8
35	Phase-shift interferometry with a digital photcamera. <i>European Journal of Physics</i> , 2007, 28, 117-124.	0.6	7
36	Intercomparison of flatness measurements of an optical flat at apertures of up to 150‰mm in diameter. <i>Metrologia</i> , 2017, 54, 85-93.	1.2	7

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37	Design of soft x-ray gratings for free electron lasers: from specification to characterization. Proceedings of SPIE, 2013, , .	0.8	6
38	Installation and commissioning of the European XFEL beam transport in the first two beamlines from a metrology point of view. Review of Scientific Instruments, 2019, 90, 021701.	1.3	6
39	Real-time spatial characterization of micrometer-sized X-ray free-electron laser beams focused by bendable mirrors. Optics Express, 2022, 30, 20980.	3.4	6
40	Dynamic speckle imaging with low-cost devices. European Journal of Physics, 2008, 29, 967-975.	0.6	5
41	Measuring the refractive index of vitreous materials at cryogenic temperatures with a spectrometer. Measurement Science and Technology, 2008, 19, 085304.	2.6	5
42	He-Ne laser wavelength-shifting interferometry. Optics Communications, 2010, 283, 5169-5172.	2.1	5
43	A novel method of preparation of silicon-on-diamond materials. Diamond and Related Materials, 2010, 19, 950-955.	3.9	5
44	Improved accuracy phase retrieval in spatial phase-shifting interferometry. Optics Communications, 2012, 285, 517-520.	2.1	5
45	SASE3: soft x-ray beamline at European XFEL. Proceedings of SPIE, 2014, , .	0.8	4
46	Absolute, high-accuracy characterization of a variable line spacing grating for the European XFEL soft X-ray monochromator. Optics Express, 2017, 25, 26519.	3.4	4
47	Metrology characterization of ultraprecise bendable mirrors for the European XFEL: from offsite calibration to installation and commissioning. Journal of Synchrotron Radiation, 2019, 26, 1110-1114.	2.4	4
48	One-step 360° rainbow holography with two spherical mirrors. Applied Optics, 2001, 40, 633.	2.1	3
49	Thermal effects in the Solar Disk Sextant telescope. , 2004, , .		3
50	Interferometric characterization of mono- and polycrystalline CVD diamond. , 2009, , .		3
51	Micro-beam and pulsed laser beam techniques for the micro-fabrication of diamond surface and bulk structures. Nuclear Instruments & Methods in Physics Research B, 2015, 348, 191-198.	1.4	3
52	Paired interferometric measurement of planarity and parallelism. , 2003, , .		2
53	Light reflection in a pool under falling rain droplets. European Journal of Physics, 2008, 29, 403-411.	0.6	2
54	Refractive index of Lithosil and Suprasil 312 at cryogenic temperature. Metrologia, 2010, 47, 175-178.	1.2	2

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55	Monitoring the thinning dynamics of soap films by phase shift interferometry. The case of perfluoropolyether surfactants. European Physical Journal E, 2014, 37, 9.	1.6	2
56	An error function minimization approach for the inverse problem of adaptive mirrors tuning. , 2014, , .		2
57	Characterization of a mechanical bender for x-ray mirrors at European XFEL. , 2016, , .		2
58	In-plane, out-of-plane, and time-average speckle interferometry experiments with a digital photcamera. , 2005, 5827, 617.		1
59	Interferometric test of optical systems: effects of probe beam collimation errors. Optical Engineering, 2005, 44, 035604.	1.0	1
60	Atypical features of a lunar corona. Journal of Optics, 2006, 8, 423-426.	1.5	1
61	One-step real-image reflection holograms. European Journal of Physics, 2007, 28, 359-365.	0.6	1
62	Ray tracing approach to refractive index measurement of prism samples in a vacuum cell. Proceedings of SPIE, 2008, , .	0.8	1
63	Light reflection from water surfaces perturbed by falling rain droplets. European Journal of Physics, 2009, 30, 1009-1014.	0.6	1
64	Fused silica long-term stability: case studies. Proceedings of SPIE, 2011, , .	0.8	1
65	Optical characterization of proton irradiated diamond. Proceedings of SPIE, 2011, , .	0.8	1
66	Beam transport and focusing layout based on adaptive optics for the SQS scientific instrument at the European XFEL. Proceedings of SPIE, 2014, , .	0.8	1
67	Metrological characterization of a large aperture Fizeau for x-ray mirrors measurement. Proceedings of SPIE, 2015, , .	0.8	1
68	Ultra-high performance mirrors for diffraction limited light sources. , 2017, , .		1
69	Surface measurements in "grazing incidence" interferometry for long x-ray mirrors: theoretical limits and practical implementations. Proceedings of SPIE, 2016, , .	0.8	1
70	Metrology of micron focusing KB mirrors for SPB/SFX instrument and preliminary commissioning results at European XFEL. , 2018, , .		1
71	One-Step 360° Rainbow Holography. Optics and Photonics News, 2001, 12, 19.	0.5	0
72	Liquid mirror as planarity standard: a simplified experimental approach. , 2005, , .		0

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73	An integrated approach for photonic crystal inspection and characterization. , 2006, , .		0
74	Accurate measurement of intraocular lens parameters. , 2007, , .		0
75	Making a microscope with readily available materials. Physics Education, 2007, 42, 385-390.	0.5	0
76	Calibration of horizontally-placed planarity standards. , 2008, , .		0
77	Polarization Phase-Shift Interferometry: A Simple Laboratory Setup. AIP Conference Proceedings, 2008, , .	0.4	0
78	Modification of the electrical and optical Properties of Single Crystal Diamond with Focused MeV Ion Beams. Materials Research Society Symposia Proceedings, 2009, 1203, 1.	0.1	0
79	Spatial phase-shift interferometry: implementation of an effective phase-recovering algorithm. , 2011, , .		0
80	A Mechanical Analogue of the Refracting Telescope. Physics Teacher, 2011, 49, 236-237.	0.3	0
81	A Shack interferometer setup for optical testing in undergraduate courses. European Journal of Physics, 2012, 33, 573-582.	0.6	0
82	Metrology and quality assurance for European XFEL long flat mirrors installation. , 2017, , .		0
83	Characterization of a 150-mm long variable line spacing plane grating through interferometry. , 2017, , .		0
84	Metrology of MID offset mirrors before and after coating. , 2019, , .		0
85	Stress-releasing procedure approach for an X-ray mirror holder for round-robin measurements. , 2019, , .		0