

Maurizio Vannoni

List of Publications by Year in descending order

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85
papers

814
citations

471509

17
h-index

580821

25
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85
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85
docs citations

85
times ranked

766
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-time spatial characterization of micrometer-sized X-ray free-electron laser beams focused by bendable mirrors. <i>Optics Express</i> , 2022, 30, 20980.	3.4	6
2	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
3	Installation and commissioning of the European XFEL beam transport in the first two beamlines from a metrology point of view. <i>Review of Scientific Instruments</i> , 2019, 90, 021701.	1.3	6
4	The SASE1 X-ray beam transport system. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 692-699.	2.4	11
5	Metrology characterization of ultraprecise bendable mirrors for the European XFEL: from offsite calibration to installation and commissioning. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1110-1114.	2.4	4
6	Metrology of MID offset mirrors before and after coating. , 2019, , .		0
7	Stress-releasing procedure approach for an X-ray mirror holder for round-robin measurements. , 2019, , .		0
8	Metrology of micron focusing KB mirrors for SPB/SFX instrument and preliminary commissioning results at European XFEL. , 2018, , .		1
9	Ultra-high performance mirrors for diffraction limited light sources. , 2017, , .		1
10	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
11	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
12	Absolute, high-accuracy characterization of a variable line spacing grating for the European XFEL soft X-ray monochromator. <i>Optics Express</i> , 2017, 25, 26519.	3.4	4
13	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
14	Metrology and quality assurance for European XFEL long flat mirrors installation. , 2017, , .		0
15	Characterization of a 150-mm long variable line spacing plane grating through interferometry. , 2017, , .		0
16	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
17	Calibration and optimization of an x-ray bendable mirror using displacement-measuring sensors. <i>Optics Express</i> , 2016, 24, 17292.	3.4	9
18	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

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19	Absolute interferometric characterization of an x-ray mirror surface profile. Metrologia, 2016, 53, 1-6.	1.2	17
20	Characterization of a mechanical bender for x-ray mirrors at European XFEL. , 2016, , .		2
21	Characterization of a piezo bendable X-ray mirror. Journal of Synchrotron Radiation, 2016, 23, 169-175.	2.4	11
22	Surface measurements in "grazing incidence" interferometry for long x-ray mirrors: theoretical limits and practical implementations. Proceedings of SPIE, 2016, , .	0.8	1
23	Metrological characterization of a large aperture Fizeau for x-ray mirrors measurement. Proceedings of SPIE, 2015, , .	0.8	1
24	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
25	Adaptive x-ray mirror tuning simulation through influence functions™ modeling and error function minimization. Optical Engineering, 2015, 54, 015104.	1.0	8
26	Absolute flatness measurement using oblique incidence setup and an iterative algorithm A demonstration on synthetic data. Optics Express, 2014, 22, 3538.	3.4	26
27	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
28	An error function minimization approach for the inverse problem of adaptive mirrors tuning. , 2014, , .		2
29	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
30	SASE3: soft x-ray beamline at European XFEL. Proceedings of SPIE, 2014, , .	0.8	4
31	Systematic study of defect-related quenching of NV luminescence in diamond with time-correlated single-photon counting spectroscopy. Physical Review B, 2013, 88, .	3.2	40
32	Measuring the thickness of soap bubbles with phase-shift interferometry. Optics Express, 2013, 21, 19657.	3.4	16
33	Fabrication of low loss MOMS resonators for quantum optics experiments. Journal of Micromechanics and Microengineering, 2013, 23, 085010.	2.6	10
34	Design of soft x-ray gratings for free electron lasers: from specification to characterization. Proceedings of SPIE, 2013, , .	0.8	6
35	Calibration of absolute planarity flats: generalized iterative approach. Optical Engineering, 2012, 51, 081510.	1.0	12
36	Complex refractive index variation in proton-damaged diamond. Optics Express, 2012, 20, 19382.	3.4	23

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37	A Shack interferometer setup for optical testing in undergraduate courses. <i>European Journal of Physics</i> , 2012, 33, 573-582.	0.6	0
38	Improved accuracy phase retrieval in spatial phase-shifting interferometry. <i>Optics Communications</i> , 2012, 285, 517-520.	2.1	5
39	Modification of the structure of diamond with MeV ion implantation. <i>Diamond and Related Materials</i> , 2011, 20, 774-778.	3.9	25
40	Spatial phase-shift interferometry: implementation of an effective phase-recovering algorithm. , 2011, , .		0
41	Fused silica long-term stability: case studies. <i>Proceedings of SPIE</i> , 2011, , .	0.8	1
42	A Mechanical Analogue of the Refracting Telescope. <i>Physics Teacher</i> , 2011, 49, 236-237.	0.3	0
43	Relaxation time and viscosity of fused silica glass at room temperature. <i>European Physical Journal E</i> , 2011, 34, 92.	1.6	16
44	Optical characterization of proton irradiated diamond. <i>Proceedings of SPIE</i> , 2011, , .	0.8	1
45	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
46	He-Ne laser wavelength-shifting interferometry. <i>Optics Communications</i> , 2010, 283, 5169-5172.	2.1	5
47	Refractive index of Lithosil and Suprasil 312 at cryogenic temperature. <i>Metrologia</i> , 2010, 47, 175-178.	1.2	2
48	Silicon-on-diamond material by pulsed laser technique. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	12
49	A novel method of preparation of silicon-on-diamond materials. <i>Diamond and Related Materials</i> , 2010, 19, 950-955.	3.9	5
50	Controlled variation of the refractive index in ion-damaged diamond. <i>Diamond and Related Materials</i> , 2010, 19, 428-431.	3.9	28
51	Evidence of Light Guiding in Ion-Implanted Diamond. <i>Physical Review Letters</i> , 2010, 105, 233903.	7.8	49
52	Long-term deformation at room temperature observed in fused silica. <i>Optics Express</i> , 2010, 18, 5114.	3.4	17
53	Viscous Behavior of Fused Silica at Room Temperature. <i>Optics and Photonics News</i> , 2010, 21, 41.	0.5	33
54	Light reflection from water surfaces perturbed by falling rain droplets. <i>European Journal of Physics</i> , 2009, 30, 1009-1014.	0.6	1

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55	Interferometric characterization of mono- and polycrystalline CVD diamond. , 2009, , .		3
56	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
57	Direct fabrication of three-dimensional buried conductive channels in single crystal diamond with ion microbeam induced graphitization. Diamond and Related Materials, 2009, 18, 870-876.	3.9	37
58	Three-flat test with plates in horizontal posture. Applied Optics, 2008, 47, 2133.	2.1	21
59	Absolute planarity with three-flat test: an iterative approach with Zernike polynomials. Optics Express, 2008, 16, 340.	3.4	35
60	Calibration of horizontally-placed planarity standards. , 2008, , .		0
61	Light reflection in a pool under falling rain droplets. European Journal of Physics, 2008, 29, 403-411.	0.6	2
62	Dynamic speckle imaging with low-cost devices. European Journal of Physics, 2008, 29, 967-975.	0.6	5
63	Measuring the refractive index of vitreous materials at cryogenic temperatures with a spectrometer. Measurement Science and Technology, 2008, 19, 085304.	2.6	5
64	Polarization Phase-Shift Interferometry: A Simple Laboratory Setup. AIP Conference Proceedings, 2008, , .	0.4	0
65	Ray tracing approach to refractive index measurement of prism samples in a vacuum cell. Proceedings of SPIE, 2008, , .	0.8	1
66	Low-cost accelerometers for physics experiments. European Journal of Physics, 2007, 28, 781-787.	0.6	27
67	One-step real-image reflection holograms. European Journal of Physics, 2007, 28, 359-365.	0.6	1
68	Accurate measurement of intraocular lens parameters. , 2007, , .		0
69	Iterative algorithm for three flat test. Optics Express, 2007, 15, 6809.	3.4	47
70	Intraocular lenses with surface aspherization: Interferometric study. Journal of Cataract and Refractive Surgery, 2007, 33, 1624-1630.	1.5	10
71	Phase-shift interferometry with a digital photcamera. European Journal of Physics, 2007, 28, 117-124.	0.6	7
72	Making a microscope with readily available materials. Physics Education, 2007, 42, 385-390.	0.5	0

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73	Parallelism error characterization with mechanical and interferometric methods. Optics and Lasers in Engineering, 2007, 45, 719-722.	3.8	8
74	An integrated approach for photonic crystal inspection and characterization. , 2006, , .		0
75	Atypical features of a lunar corona. Journal of Optics, 2006, 8, 423-426.	1.5	1
76	In-plane, out-of-plane, and time-average speckle interferometry experiments with a digital photcamera. , 2005, 5827, 617.		1
77	Liquid mirror as planarity standard: a simplified experimental approach. , 2005, , .		0
78	Interferometric test of optical systems: effects of probe beam collimation errors. Optical Engineering, 2005, 44, 035604.	1.0	1
79	Validation of absolute planarity reference plates with a liquid mirror. Metrologia, 2005, 42, 389-393.	1.2	17
80	Joint interferometric measurement of planarity and parallelism. Optical Engineering, 2004, 43, 1215.	1.0	11
81	Thermal effects in the Solar Disk Sextant telescope. , 2004, , .		3
82	Speckle interferometry experiments with a digital photcamera. American Journal of Physics, 2004, 72, 906-909.	0.7	18
83	Paired interferometric measurement of planarity and parallelism. , 2003, , .		2
84	One-Step 360° Rainbow Holography. Optics and Photonics News, 2001, 12, 19.	0.5	0
85	One-step 360° rainbow holography with two spherical mirrors. Applied Optics, 2001, 40, 633.	2.1	3