Mourad Idir

List of Publications by Year
in descending order

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63	1,403	361413	345221
papers	citations	20 h-index	36 g-index

63	63	63	781
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Review of phase measuring deflectometry. Optics and Lasers in Engineering, 2018, 107, 247-257.	3.8	152
2	Non-null full field X-ray mirror metrology using SCOTS: a reflection deflectometry approach. Optics Express, 2012, 20, 12393.	3.4	114
3	Hartmann wave-front measurement at 134 nm with Î»_EUV/120 accuracy. Optics Letters, 2003, 28, 1534.	3.3	93
4	Comparison of two-dimensional integration methods for shape reconstruction from gradient data. Optics and Lasers in Engineering, 2015, 64, 1-11.	3.8	83
5	Modal phase measuring deflectometry. Optics Express, 2016, 24, 24649.	3.4	71
6	X-ray active mirror coupled with a Hartmann wavefront sensor. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 616, 162-171.	1.6	58
7	High-accuracy aspheric x-ray mirror metrology using Software Configurable Optical Test System/deflectometry. Optical Engineering, 2015, 54, 084103.	1.0	50
8	A 2 D high accuracy slope measuring system based on a Stitching Shack Hartmann Optical Head. Optics Express, 2014, 22, 2770.	3.4	46
9	Zonal wavefront reconstruction in quadrilateral geometry for phase measuring deflectometry. Applied Optics, 2017, 56, 5139.	2.1	43
10	Quadriwave lateral shearing interferometry in an achromatic and continuously self-imaging regime for future x-ray phase imaging. Optics Letters, 2011, 36, 1398.	3.3	39
11	Spline based least squares integration for two-dimensional shape or wavefront reconstruction. Optics and Lasers in Engineering, 2017, 91, 221-226.	3.8	39
12	Study on an effective one-dimensional ion-beam figuring method. Optics Express, 2019, 27, 15368.	3.4	37
13	Automatic alignment of a Kirkpatrick-Baez active optic by use of a soft-x-ray Hartmann wavefront sensor. Optics Letters, 2006, 31, 199.	3.3	35
14	Approaching sub-50 nanoradian measurements by reducing the saw-tooth deviation of the autocollimator in the Nano-Optic-Measuring Machine. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 785, 206-212.	1.6	27
15	Stitching interferometry for synchrotron mirror metrology at National Synchrotron Light Source II (NSLS-II). Optics and Lasers in Engineering, 2020, 124, 105795.	3.8	26
16	Shape reconstruction from gradient data in an arbitrarily-shaped aperture by iterative discrete cosine transforms in Southwell configuration. Optics and Lasers in Engineering, 2015, 67, 176-181.	3.8	24
17	Innovative nano-accuracy surface profiler for sub-50 nrad rms mirror test. Proceedings of SPIE, 2016, , .	0.8	24
18	Two-dimensional stitching interferometry for self-calibration of high-order additive systematic errors. Optics Express, 2019, 27, 26940.	3.4	24

#	Article	IF	Citations
19	Adaptive shape control of wavefront-preserving X-ray mirrors with active cooling and heating. Optics Express, 2020, 28, 19242.	3.4	24
20	NbC/Si multilayer mirror for next generation EUV light sources. Optics Express, 2012, 20, 15114.	3.4	21
21	Advances in X-ray optics: From metrology characterization to wavefront sensing-based optimization of active optics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 907, 105-115.	1.6	21
22	One-dimensional stitching interferometry assisted by a triple-beam interferometer. Optics Express, 2017, 25, 9393.	3.4	20
23	RIFTA: A Robust Iterative Fourier Transform-based dwell time Algorithm for ultra-precision ion beam figuring of synchrotron mirrors. Scientific Reports, 2020, 10, 8135.	3.3	20
24	One-dimensional angular-measurement-based stitching interferometry. Optics Express, 2018, 26, 9882.	3.4	19
25	RISE: robust iterative surface extension for sub-nanometer X-ray mirror fabrication. Optics Express, 2021, 29, 15114.	3.4	19
26	Universal dwell time optimization for deterministic optics fabrication. Optics Express, 2021, 29, 38737.	3.4	18
27	Energy resolution of the CdTe-XPAD detector: calibration and potential for Laue diffraction measurements on protein crystals. Journal of Synchrotron Radiation, 2012, 19, 323-331.	2.4	17
28	A one-dimensional ion beam figuring system for x-ray mirror fabrication. Review of Scientific Instruments, 2015, 86, 105120.	1.3	17
29	DABAM: an open-source database of X-ray mirrors metrology. Journal of Synchrotron Radiation, 2016, 23, 665-678.	2.4	16
30	One-dimensional ion-beam figuring for grazing-incidence reflective optics. Journal of Synchrotron Radiation, 2016, 23, 182-186.	2.4	16
31	Model mismatch analysis and compensation for modal phase measuring deflectometry. Optics Express, 2017, 25, 881.	3.4	15
32	Current status of the NSLS-II optical metrology laboratory. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 710, 17-23.	1.6	14
33	New figuring model based on surface slope profileÂfor grazing-incidence reflective optics. Journal of Synchrotron Radiation, 2016, 23, 1087-1090.	2.4	14
34	Nano-accuracy measurements and the surface profiler by use of Monolithic Hollow Penta-Prism for precision mirror testing. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 759, 36-43.	1.6	13
35	Two-dimensional stitching interferometry based on tilt measurement. Optics Express, 2018, 26, 23278.	3.4	13
36	Development of a positionâ€“velocityâ€“time-modulated two-dimensional ion beam figuring system for synchrotron x-ray mirror fabrication. Applied Optics, 2020, 59, 3306.	1.8	13

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37	Metrology and Tests beamline at SOLEIL Design and first results. AIP Conference Proceedings, 2010, , .	0.4	12
38	Multi-pitch self-calibration measurement using a nano-accuracy surface profiler for X-ray mirror metrology. Optics Express, 2020, 28, 23060.	3.4	10
39	Hartmann wavefront sensor and adaptive x-ray optics developments for synchrotron applications. Proceedings of SPIE, 2010, , .	0.8	9
40	X-ray mirror metrology using SCOTS/deflectometry. Proceedings of SPIE, 2013, , .	0.8	9
41	EUV and Hard X-ray Hartmann Wavefront Sensing for Optical Metrology, Alignment and Phase Imaging. Sensors, 2021, 21, 874.	3.8	9
42	A Shackâ€“Hartmann measuring head for the two-dimensional characterization of X-ray mirrors. Journal of Synchrotron Radiation, 2008, 15, 134-139.	2.4	8
43	Future trends in synchrotron science at NSLS-II. Journal of Physics Condensed Matter, 2020, 32, 374008.	1.8	7
44	Multi-tool optimization for computer controlled optical surfacing. Optics Express, 2022, 30, 16957.	3.4	7
45	Wavefront Closed-Loop Correction for X-Ray Microfocusing Active Optics. AIP Conference Proceedings, 2007, , .	0.4	6
46	Controlling X-ray deformable mirrors during inspection. Journal of Synchrotron Radiation, 2016, 23, 1348-1356.	2.4	6
47	Three-dimensional shape measurement with modal phase measuring deflectometry. , 2017, , .		5
48	Ex- and In-situ Metrology Based on the Shack-Hartmann Technique for Sub-nanometric Metrology. Synchrotron Radiation News, 2013, 26, 23-29.	0.8	4
49	Repeatability analysis of one-dimensional angular-measurement-based stitching interferometry. Optics Express, 2018, 26, 20192.	3.4	4
50	Hartmann and Shackâ€“Hartmann Wavefront Sensors for Sub-nanometric Metrology. , 2008, , 219-232.		3
51	Design and demonstration of tunable soft x-ray lateral shearing and Hartmann wavefront sensors. , 2018, , .		3
52	Study of interface reaction in a B₄C/Cr mirror at elevated temperature using soft X-ray reflectivity. Journal of Synchrotron Radiation, 2022, 29, 978-984.	2.4	3
53	Alignment of KB mirrors with at-wavelength metrology tool simulated using SRW. , 2017, , .		1
54	Developments of EUV/x-ray wavefront sensors and adaptive optics at Imagine Optic. , 2018, , .		1

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55	Study on the performances of dwell time algorithms in ion beam figuring. , 2019, , .		1
56	New scheme to control x-ray deformable mirrors. , 2016, , .		0
57	Control x-ray deformable mirrors with few measurements. Proceedings of SPIE, 2016, , .	0.8	0
58	X-ray optics R&D at NSLSII: focus on optical metrology development. , 2016, , .		0
59	X-ray active optics for synchrotron and Free Electron Laser applications Why and How?. , 2013, , .		0
60	One-dimensional ion-beam figuring solution from Brookhaven National Laboratory. , 2019, , .		0
61	Collaborative development of diffraction-limited beamline optical systems at US DOE light sources. , 2019, , .		0
62	Hard X-Ray Hartmann Wavefront Sensor for Beamline Optimization. Synchrotron Radiation News, 0, , 1-5.	0.8	0
63	Element differentiation with a Hartmann- based X-ray phase imaging system. Nondestructive Testing and Evaluation, 0, , 1-14.	2.1	0