David L Dickensheets

List of Publications by Year in descending order

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34 papers 584

759233 12 h-index 21 g-index

35 all docs 35 docs citations

35 times ranked 575 citing authors

#	Article	IF	CITATIONS
1	A novel miniature confocal microscope/Raman spectrometer system for biomolecular analysis on future Mars missions after Antarctic trials. Journal of Raman Spectroscopy, 2000, 31, 633-635.	2.5	114
2	MEMS-based handheld confocal microscope for in-vivo skin imaging. Optics Express, 2010, 18, 3805.	3.4	62
3	The role of Raman spectroscopy as an astrobiological tool in the exploration of Mars. Journal of Raman Spectroscopy, 2004, 35, 441-457.	2.5	54
4	Confocal enhanced optical coherence tomography for nondestructive evaluation of paints and coatings. Optics Letters, 1999, 24, 1808.	3.3	47
5	Micromachined silicon nitride deformable mirrors for focus control. Optics Letters, 2001, 26, 1280.	3.3	46
6	Doppler optical coherence tomography with a micro-electro-mechanical membrane mirror for high-speed dynamic focus tracking. Optics Letters, 2006, 31, 1262.	3.3	37
7	SU-8 2002 Surface Micromachined Deformable Membrane Mirrors. Journal of Microelectromechanical Systems, 2013, 22, 94-106.	2.5	25
8	High Speed Focus Control MEMS Mirror With Controlled Air Damping for Vital Microscopy. Journal of Microelectromechanical Systems, 2013, 22, 938-948.	2.5	25
9	A handheld laser scanning confocal reflectance imaging–confocal Raman microspectroscopy system. Biomedical Optics Express, 2012, 3, 488.	2.9	23
10	MEMS-in-the-lens architecture for a miniature high-NA laser scanning microscope. Light: Science and Applications, 2019, 8, 59.	16.6	18
11	Electrostatic-Pneumatic Membrane Mirror With Positive or Negative Variable Optical Power. Journal of Microelectromechanical Systems, 2015, 24, 716-729.	2.5	16
12	Laser wavelength selection for Raman spectroscopy of microbial pigments in situ in Antarctic desert ecosystem analogues of former habitats on Mars. International Journal of Astrobiology, 2002, 1, 333-348.	1.6	15
13	Dynamic performance of microelectromechanical systems deformable mirrors for use in an active/adaptive two-photon microscope. Journal of Biomedical Optics, 2016, 21, 121507.	2.6	13
14	<title>Microfabricated biaxial electrostatic torsional scanning mirror</title> ., 1997, , .		12
15	Real-Time Digitization of Metabolomics Patterns from a Living System Using Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2014, 25, 1755-1762.	2.8	11
16	Wide-field imaging combined with confocal microscopy using a miniature f/5 camera integrated within a high NA objective lens. Optics Letters, 2017, 42, 1241.	3.3	10
17	Vanguard—a European robotic astrobiology-focussed Mars sub-surface mission proposal. Acta Astronautica, 2005, 56, 397-407.	3.2	9
18	Design Constraints for Mobile, High-Speed Fluorescence Brain Imaging in Awake Animals. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 446-453.	4.0	9

#	Article	IF	Citations
19	MEMS 3-D Scan Mirror With SU-8 Membrane and Flexures for High NA Microscopy. Journal of Microelectromechanical Systems, 2018, 27, 719-729.	2.5	7
20	MEMS 3-dimensional scanner for handheld confocal microscope. , 2017, , .		6
21	Stress engineering for free-standing SU-8 2002 thin film devices. Proceedings of SPIE, 2012, , .	0.8	5
22	An improved focus control mirror using SU-8 wafer bonding process. Proceedings of SPIE, 2011, , .	0.8	4
23	Electrostatic-pneumatic MEMS deformable mirror for focus control. , 2012, , .		3
24	Dermoscopy-guided reflectance confocal microscopy of skin using high-NA objective lens with integrated wide-field color camera. , 2016, 9689, .		3
25	Polymer deformable membrane mirrors for focus control using SU-8 2002. , 2008, , .		2
26	Variable-focus SU-8 membrane mirror with enhanced stroke using feedback control., 2009,,.		2
27	A deformable mirror with perforated backplate for high-speed operation with controlled damping. , 2011, , .		1
28	MEMS Back-Scanning Mirrors for Step-Stare Scanning for Chirped Pulse Coherent LIDAR. , 2021, , .		1
29	MEMS-in-the-lens 3D beam scanner for in vivo microscopy. , 2019, , .		1
30	Nanostructured effective-index micro-optical devices based on blazed 2-D sub-wavelength gratings with uniform features on a variable-pitch. , 2008 , , .		0
31	MEMS mirror for flexible z-axis control in a commercial confocal microscope. , 2012, , .		O
32	Reflective infrared quarter-wave plate using silicon nanostructures. , 2014, , .		0
33	Phase-resolved characterization of nanostructured reflective infrared quarter-wave plate. , 2015, , .		0
34	Black silicon integrated aperture. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2017, 16, 1.	0.9	0