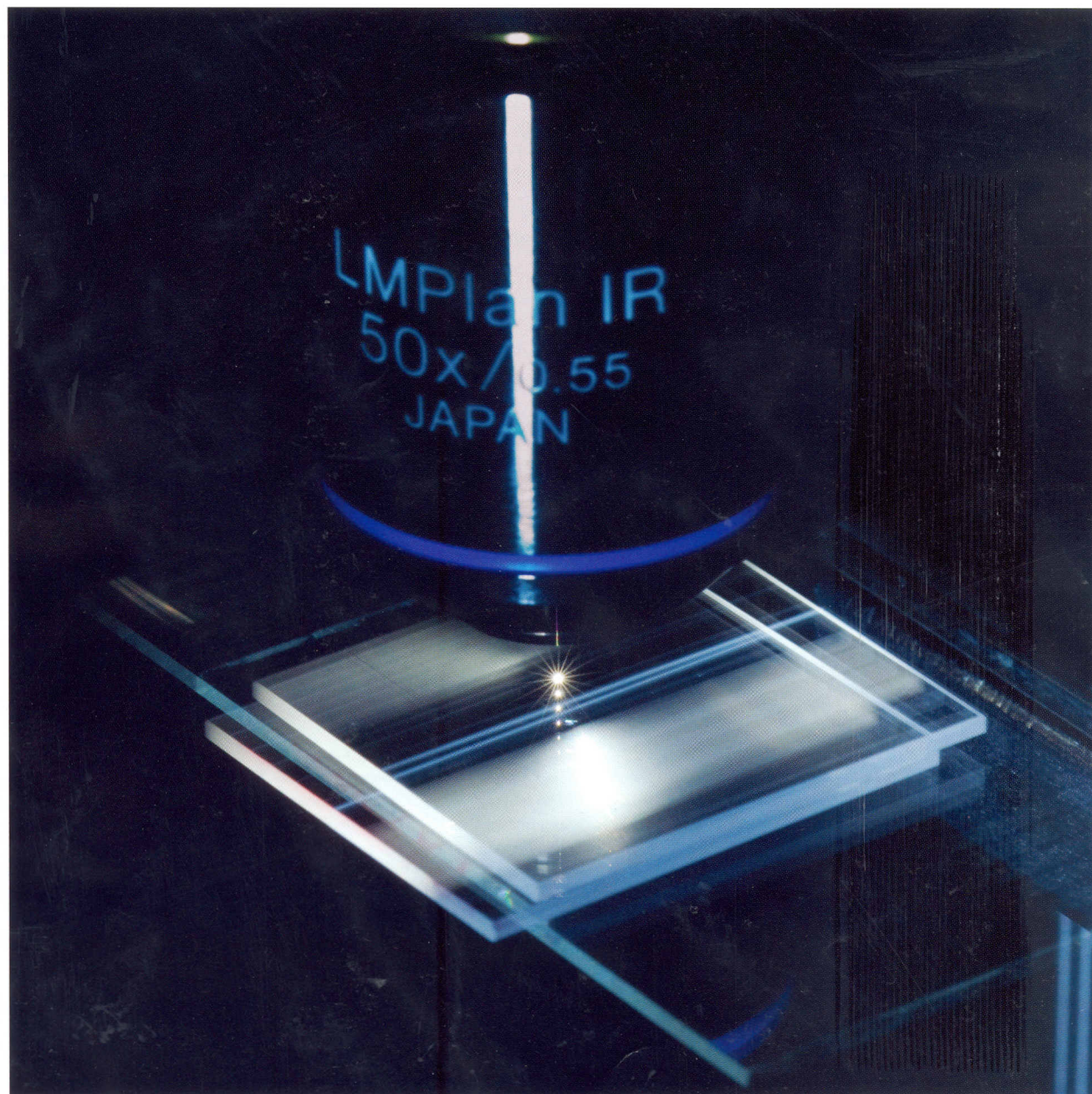


Applied Optics



Applied Optics

Volume 50
Number 13
1 May 2011

www.osa.org

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Cover

A bright spot of plasma is generated by an ultrashort pulsed laser at the joining interface of two glass plates. The spot is hot enough to locally melt and join the glass plates. The localized heat input suppresses any defect formation. For details see the paper by Cvecek *et al.*, pp. 1941–1944.

OPTICAL TECHNOLOGY

Diffraction and Gratings

- Resolution and stability analysis of localized surface plasmon lithography on the geometrical parameters of soft mold
Yukun Zhang, Jinglei Du, Xingzhan Wei, Lifang Shi, Qiling Deng, Xiaochun Dong, and Chunlei Du 1963

Fiber Optics and Optical Communications

- Revised minimum reciprocity configuration and actualization methodology of interferometric all-fiber-optic gyroscopes
Xinyue Wang and Ziyu Wang 1856

- Femtosecond laser-inscribed fiber Bragg gratings for strain monitoring in power cables of offshore wind turbines
Jörg Burgmeier, Wolfgang Schippers, Nico Emde, Peter Funken, and Wolfgang Schade 1868

- Sensitive acoustic vibration sensor using single-mode fiber tapers
Yi Li, Xiaozhen Wang, and Xiaoyi Bao 1873

Geometric Optics

- Optical lens design based on metallic nanoslits with variant widths
Qiaofen Zhu, Dayong Wang, Xianhua Zheng, and Yan Zhang 1879

Holography

- Analysis of voltage effect on holographic gratings by modulation transfer function
Rosangela Coromoto Fontanilla-Urdaneta, Arturo Olivares-Pérez, Israel Fuentes-Tapia, and Mónica Areli Ríos-Velasco 1827

Imaging Systems

- High-precision and efficient alignment of cubic phase plate based on Zernike polynomials
Xie Bin and Xiao Zhi-Hong 1812

- Terahertz quasi-time-domain spectroscopy imaging
Maik Scheller, Stefan F. Dürschmidt, Matthias Stecher, and Martin Koch 1884

- Variant of the anastigmatic telescope with three mirrors for back focal length
J. Herrera, S. Vázquez, E. Luna, L. Salas, J. Nuñez, E. Sohn, and E. Ruiz 1905

Integrated Optics

- Modeling and experimental observation of an on-chip two-dimensional far-field interference pattern
Amir Hosseini, David Kwong, Yang Zhang, Andrea Alu, and Ray T. Chen 1822

Optical Design and Fabrication

- Sample preparation method for glass welding by ultrashort laser pulses yields higher seam strength
K. Cvecek, I. Miyamoto, J. Strauss, M. Wolf, T. Frick, and M. Schmidt 1941

Spectroscopy

- Implementation of vibrational phase contrast coherent anti-Stokes Raman scattering microscopy
Martin Jurna, Jennifer L. Herek, and Herman L. Offerhaus 1839

Thin Films

- Twin mirrors for laser interferometric gravitational-wave detectors
Benoît Sassolas, Quentin Benoît, Raffaele Flaminio, Danièle Forest, Janyce Franc, Massimo Galimberti, Aline Lacoudre, Christophe Michel, Jean-Luc Montorio, Nazario Morgado, and Laurent Pinard 1894

- Optical properties and residual stress in aluminum nitride films prepared by alternating-current dual reactive magnetron sputtering
Chien-Jen Tang, Cheng-Chung Jaing, Kun-Hsien Lee, and Cheng-Chung Lee 1945

INFORMATION PROCESSING

Image Processing

- Optical image encryption using a jigsaw transform for silhouette removal in interference-based methods and decryption with a single spatial light modulator
Pramod Kumar, Joby Joseph, and Kehar Singh 1805

- Image quality enhancement of computational integral imaging reconstruction for partially occluded objects using binary weighting mask on occlusion areas
Joon-Jae Lee, Byung-Gook Lee, and Hoon Yoo 1889

Imaging Systems

- Adaptive target detection with a polarization-sensitive optical system
Lingfei Meng and John P. Kerekes 1925

Machine Vision

- Image registration method for multimodal images
Wang Bingjian, Lu Quan, Li Yapeng, Li Fan, Bai Liping, Lu Gang, and Lai Rui 1861

Medical Optics and Biotechnology

- Performance and scalability of Fourier domain optical coherence tomography acceleration using graphics processing units
Jian Li, Pavel Bloch, Jing Xu, Marinko V. Sarunic, and Lesley Shannon 1832

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LASERS, PHOTONICS, AND ENVIRONMENTAL OPTICS

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Extremely sensitive detection of NO₂ employing off-axis integrated cavity output spectroscopy coupled with multiple-line integrated absorption spectroscopy

Gottipaty N. Rao and
Andreas Karpf

1915

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Tunable microwave generation based on a dual-wavelength single-longitudinal-mode fiber laser using a phase-shifted grating on a triangular cantilever

Meng Jiang, Bo Lin,
Perry Ping Shum, Swee Chuan Tjin,
Xinyong Dong, and Qizhen Sun

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Effective random laser action in Rhodamine 6G solution with Al nanoparticles

Liling Yang, Guoying Feng, Jiayu Yi,
Ke Yao, Guoliang Deng, and
Shouhuan Zhou

1816

Long-distance optical guiding of colloidal particles using holographic axilems

Sunita Ahlawat,
Ravi Shanker Verma,
Raktim Dasgupta, and
Pradeep Kumar Gupta

1933

Experimental study on GaP surface damage threshold induced by a high repetition rate femtosecond laser

Yi Li, Feng Liu, Yanfeng Li,
Lu Chai, Qirong Xing, Minglie Hu,
and Chingyue Wang

1958

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Polymeric optofluidic Fabry-Perot sensor by direct laser machining and hot embossing

Jing Wu, Daniel Day, and Min Gu

1843

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Long-term instrumental parameter investigation of a Fabry-Perot spectrometer at an isolated field station

G. Hernandez and M. P. McCarthy

1951

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Experimental observation of extremely weak optical scattering from an interlocking carbon nanotube array

Zu-Po Yang, Mei-Li Hsieh,
James A. Bur, Lijie Ci,
Leonard M. Hanssen,
Boris Wilthan, Pulickel M. Ajayan,
and Shawn-Yu Lin

1850

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