

JOURNAL HOME

ABOUT

MEMORANDA

MINI-REVIEWS

ISSUES IN PROGRESS

CURRENT ISSUE

ALL ISSUES



About the cover

Optica

Prem Kumar, Editor-in-Chief

Editorial Board ›

Search this Journal

Keyword / Author

Volume

Issue

Page



SUBMIT A PAPER

SIGN UP FOR ALERTS

20 DECEMBER 2025, VOLUME 12, ISSUE 12, PP. 1865-2022

20 ARTICLES

Actions ▾

Sort:

Topic

Page Number

Reviews



Atom-based quantum sensing of electromagnetic fields

John Kitching, James P. Shaffer, and Dmitry Budker

Optica 12(12), 2008-2022 (2025) View: [HTML](#) | [PDF](#)

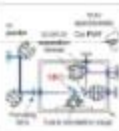
Letters



High-sensitivity SNSPD-enabled swept source Raman spectroscopy for cancer detection with SERS nanoparticles

Yifan Liu, A. K. M. Atique Ullah, Timothy M. Rambo, Aniwat Juhong, Bo Li, Cheng-you Yao, Min Li, Jeremy S. Doredia, Stephanie Boyd, Gary D. Luker, Ming Han, Aaron J. Miller, Xuefei Huang, and Zhen Qiu

Optica 12(12), 1988-1991 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]



Continuous-wave laser source at the 148 nm nuclear transition of Th-229

Vishal Lal, Maksim V. Okhapkin, Johannes Tiedau, Niels Irwin, Valentin Petrov, and Ekkehard Peik

Optica 12(12), 1971-1974 (2025) View: [HTML](#) | [PDF](#)

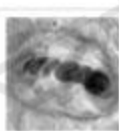


High-order hyperbolic waves

Xiaofan Wang, Zixun Ge, and Huanyang Chen

Optica 12(12), 1919-1922 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]

Research Articles



Back-illumination interference tomography for imaging weak scattering in thick tissues

Gregory N. McKay, Jerome Mertz, and Nicholas J. Durr

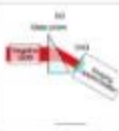
Optica 12(12), 1865-1872 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (3)]



Structural and functional mouse brain imaging facilitated by a head-mounted optically transparent skull (HOTS) window allowing offline clearing

Lina Liu, Yufeng Gao, Yuezhi He, Jiuling Liao, Yaozhang Sheng, Liang Wang, Shiwei Ye, Na Xiao, Xueming Cao, Ting Wu, Zonghua Wen, Jun Chu, Wei Zheng, and Hui Li

Optica 12(12), 1946-1960 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (7)]



Spatially dependent group delay dispersion from a diffraction grating and its application to the single-shot d-scan technique

Daniel Díaz Rivas, Cristian Barbero, Chen Guo, Marzo C. López Cerón, Miguel Canhoto, Ivan Sytceвич, Saga Westerberg, Gaspard Beaufort, Íñigo J. Sola, Benjamín Alonso, Miguel Miranda, Helder Crespo, Rosa Romero, Anne-Lise Viotti, and Cord L. Arnold

Optica 12(12), 1923-1930 (2025) View: [HTML](#) | [PDF](#) [Public Reviewer Comments]



Precision channel loss estimation for quantum networks

M. V. Jabir, Riley B. Dawkins, J. Sabines-Chesterking, Dileep V. Reddy, A. E. Lita, A. Battou, and Thomas Gerrits

Optica 12(12), 2001-2007 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]



Real-time waveguided quantum ghost imaging

Alexander Demuth, Robin Camphausen, Massimo Gandola, Enrico Manuzzato, Alessandro Tontini, Leonardo Gasparini, and Valerio Pruneri

Optica 12(12), 1992-2000 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (3)]



Integrated optical-to-optical gain in a silicon photonic modulator neuron

Joshua C. Lederman, Yusuf O. Jimoh, Yuxin Wang, Simon Bilodeau, Eric C. Blow, Bhavin J. Shastri, and Paul R. Prucnal

Optica 12(12), 1904-1911 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]



Integrated magneto-optic-based magnetometer: classical and quantum limits

Paolo Pintus, Heming Wang, Sudharsanan Srinivasan, Sergio Pinna, Duanni Huang, Yuya Shoji, Caroline A. Ross, John E. Bowers, and Galan Moody

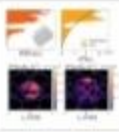
Optica 12(12), 1936-1945 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]



Efficient laser emission via a diode-pumped arc-plasma-state gain medium

Jianyong Sun, Rui Wang, Zining Yang, Qingshan Liu, Ruiyun Tang, Longfei Jiang, Fubin Luo, Hongyan Wang, Weihong Hua, Chaofan Zhang, Weiqiang Yang, and Xiaojun Xu

Optica 12(12), 1878-1883 (2025) View: [HTML](#) | [PDF](#)



Controlling X-ray emission with optical nanostructures

Elina Sendonaris, Jamison Sloan, Nicholas Rivera, Ido Kaminer, and Marin Soljačić

Optica 12(12), 1975-1980 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]



Molecular exciton-polariton condensate lattice via structured illumination

Jackson Chapman, Daegwang Choi, Ravindra Kumar Yadav, Ezra Bader, Kevin G. Cognee, Sitakanta Satapathy, and Vinod M. Menon

Optica 12(12), 1873-1877 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]



Single-shot 3D characterization of spatiotemporal wave packets via a spatiotemporal wavefront sensor (STWFS)

Xiuyu Yao, Ping Zhu, Youjian Yi, Zezhao Gong, Dongjun Zhang, Ailin Guo, Fucai Ding, Xiao Liang, Xuejie Zhang, Meizhi Sun, Qiang Zhang, Miaoyan Tong, Lijie Cui, Hailun Zen, Xinglong Xie, and Jianqiang Zhu

Optica 12(12), 1884-1894 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (3)]



Thin absorber AlInAsSb SACM APDs with photon-trapping gratings for eSWIR applications

Hannaneh Karimi, Qi Lin, Evan L. Simmons, Byron D. Aguilar, J. Andrew McArthur, Artem Talanov, Kubra Circir, A. Adam Dadey, Ellie Wang, Dekang Chen, Veronica Fisher, Tanner Pearson, Kyle J. Dorsey, Seth R. Bank, and Joe C. Campbell

Optica 12(12), 1931-1935 (2025) View: [HTML](#) | [PDF](#)



High-speed VCSEL arrays enabled by monolithic high-index-contrast gratings

Niels Heermeier, Mikolaj Janćzak, James A. Lott, Tomasz Czystanowski, and Stephan Reitzenstein

Optica 12(12), 1961-1970 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]



Nanoscatteing measurement of 3D polarization and spin in a random evanescent wave

Zhen Dong, Kimmo Saastamoinen, Andreas Norrman, José J. Gil, Yahong Chen, Ari T. Friberg, and Tero Setälä

Optica 12(12), 1912-1918 (2025) View: [HTML](#) | [PDF](#)



Time-domain Raman optical activity spectroscopy

Kotaro Hiramatsu, Hikaru Kuramochi, Satoshi Takeuchi, and Tahei Tahara

Optica 12(12), 1981-1987 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]



Single-shot, single-mask X-ray dark-field, and phase-contrast imaging

Jingcheng Yuan and Mini Das

Optica 12(12), 1895-1903 (2025) View: [HTML](#) | [PDF](#) [Suppl. Mat. (1)]

[Previous Issue](#)

Top

Publishing Home

Journals

Conferences

Preprints (Optica Open)

INFORMATION FOR

Authors

Reviewers

Librarians

OPEN ACCESS INFORMATION

Open Access Statement and Policy

Terms for Journal Article Reuse

OTHER RESOURCES

Optica Open

Optica Publishing Group Bookshelf

Optics ImageBank

Optics & Photonics News

Spotlight on Optics

Optica Home

ABOUT

About Optica Publishing Group

About My Account

Sign up for Alerts

Contact Us

Send Us Feedback

My Favorites ▾

Recent Pages ▾

