

Wippermann, F.; Brückner, A.; Bräuer, A.; Oberdörster, A.  
**Multiaperturabbildungsvorrichtung mit Optiksubstrat**  
TW I652519 B

Wippermann, F.; Lange, N.; Pabst, O.  
**Vorrichtung mit einer Multiaperturabbildungsvorrichtung, Verfahren zum Herstellen derselben und Verfahren zum Erfassen eines Gesamtgesichtsfeldes**  
EP 3 366 032 B1

Wippermann, F.; Brückner, A.; Bräuer, A.  
**Multiaperturabbildungsvorrichtung, Abbildungssystem und Verfahren zum Erfassen eines Objektbereichs**  
KR 10 2018 702 295 2 B

Wippermann, F.; Brückner, A.; Bräuer, A.  
**Multiaperturabbildungsvorrichtung, Abbildungssystem und Verfahren zum Erfassen eines Objektbereichs**  
TW I651544 B; EP 3 371 650 B1

Wippermann, F.; Brückner, A.; Bräuer, A.  
**Datenformat für Multiaperturabbildungssysteme mit kanalweiser Aufteilung des Gesichtsfeldes**  
TW I665469 B

Wippermann, F.; Brückner, A.; Bräuer, A.; Oberdörster, A.  
**Vorrichtung mit einer Multikanalabbildungsvorrichtung und Verfahren zum Herstellen derselben**  
KR 10-2018-7007482 B

Wippermann, F.; Brückner, A.; Bräuer, A.; Oberdörster, A.  
**3D-Multiaperturabbildungsvorrichtung**  
TW I668989 B

Zeitner, U.; Flügel-Paul, T.; Michaelis, D.; Harzendorf, T.  
**Optische Anordnung zur spektralen Zerlegung von Licht**  
EP 3 267 230 B1

Zeitner, U.; Stürzebecher, L.; Harzendorf, T.; Völkel, R.; Vogler, U.  
**Verfahren und Vorrichtung zur Abstandsmessung mit einer diffraktiven Struktur**  
EP 2 834 593 B1

## Wissenschaftliche Publikationen | Scientific Publications

### Buchkapitel | Book chapters

Duparré, A.; S. Schröder  
**Light Scattering Techniques for the Inspection of Micro-components and Structures**  
in Optical Inspection of Microsystems, Second Edition, edited by W. Osten (2019), ISBN 978-1-498-77947-0

Jauregui C.; J. Limpert  
**Optical fibers for high-power operation**  
in Advances in High-Power Fiber and Diode Laser Engineering, edited by I. Divliansky (2019), ISBN 978-1-785-61751-5

Zou, C.; I. Staude, D. Neshev  
**Tunable Dielectric Metasurfaces & Metadevices**  
in Dielectric Metamaterials - Fundamentals, Designs, and Applications, edited by I. Brener, J. Valentine, C. Holloway, I. Staude, S. Liu (2019), ISBN 978-0-081-02403-4

### Zeitschriften | Journals

Abbasirad, N.; J. Berzins, K. Kollin, S. Saravi, N. Janunts, F. Setzpfandt, T. Pertsch  
**A fully automated dual-tip scanning near-field optical microscope for localized optical excitation and detection in the visible and near-infrared**  
Review of Scientific Instruments 90 (5) (2019) p. 053705, ISSN 0034-6748

Alberucci, A.; C.P. Jisha, U. Peschel, S. Nolte  
**Effective breaking of the action-reaction principle using spatial solitons**  
Physical Review A 100 (1) (2019) p. 011802, ISSN 1050-2947

Bagusat, V.; M. Kraus, E. Förster, D. Thomae, T. Hönle, R. Brüning, H. Hillmer, R. Brunner  
**Concept and optical design of a compact cross-grating spectrometer**  
Journal of the Optical Society of America A-Optics Image Science and Vision 36 (3) (2019) p. 345-352, ISSN 1084-7529

Baladron-Zorita, O.; Z. Wang, C. Hellmann, F. Wyrowski  
**Isolating the Gouy phase shift in a full physical-optics solution to the propagation problem**  
Journal of the Optical Society of America A-Optics Image Science and Vision 36 (9) (2019) p. 1551-1558, ISSN 1084-7529

- Barysheva, M.; S.A. Garakhin, S.Yu.Zuev, V.N. Polkovnikov, N.N. Salashchenko, M.V. Svechnikov, N.I. Chkhalo, S. Yulin  
**Comparison of approaches in the manufacture of broadband mirrors for the EUV range: Aperiodic and stack structures**  
 Quantum Electronics 49 (4) (2019) p. 380-385, ISSN 1063-7818
- Basset, M.; F. Setzpfandt, F. Steinlechner, E. Beckert, T. Pertsch, M. Gräfe  
**Perspectives for Applications of Quantum Imaging**  
 Laser & Photonics Reviews 13 (10) (2019) p. 1900097, ISSN 1863-8880
- Berzins, J.; S. Fasold, T. Pertsch, S.M.B. Bäumer, F. Setzpfandt  
**Submicrometer Nanostructure-Based RGB Filters for CMOS Image Sensors**  
 ACS Photonics 6 (4) (2019) p. 1018, ISSN 2330-4022
- Bilal, M.; A.V. Volotka, R. Beerwerth, J. Rothhardt, V. Hilbert, S. Fritzsche  
**High-precision calculations of the  $1s(2)2s2p\ P-1(1) \rightarrow 1s(2)2s(2)\ S-1(0)$  spin-allowed E1 transition in C III**  
 Physical Review A 99 (6) (2019) p. 062511, ISSN 1050-2947
- Bösel, C.; H. Gross  
**Compact freeform illumination system design for pattern generation with extended light sources**  
 Applied Optics 58 (10) (2019) p. 2713-2724, ISSN 1559-128X
- Brady, A.; C. Rossler, N. Leonhard, M. Gier, P. Bottner, R. Eberhardt, A. Tünnermann, C. Reinlein  
**Validation of pre-compensation under point-ahead-angle in a 1 km free-space propagation experiment**  
 Optics Express 27 (13) (2019) p. 17840-17850, ISSN 1094-4087
- Bucher, T.; A. Vaskin, R. Mupparapu, F.J.F. Löchner, A. George, K.E. Chong, S. Fasold, C. Neumann, D.-Y. Choi, F. Eilenberger, F. Setzpfandt, Y.S. Kivshar, T. Pertsch, A. Turchanin, I. Staude  
**Tailoring Photoluminescence from MoS<sub>2</sub> Monolayers by Mie-Resonant Metasurfaces**  
 ACS Photonics 6 (4) (2019) p. 1002-1009, ISSN 2330-4022
- Butler, T.; D. Gerz, C. Hofer, J. Xu, C. Gaida, T. Heuermann, M. Gebhardt, L. Vamos, W. Schweinberger, J.A. Gessner, T. Siefke, M. Heusinger, U. Zeitner, A. Apolonski, N. Karpowicz, J. Limpert, F. Krausz, I. Pupe  
**Watt-scale 50-MHz source of single-cycle waveform-stable pulses in the molecular fingerprint region**  
 Optics Letters 44 (7) (2019) p. 1730-1733, ISSN 0146-9592
- Cai, D.; H. Gross  
**Obscuration elimination in three-dimensional non-symmetrical optical systems**  
 Journal of Physics: Photonics 1 (4) (2019) p. 044002
- Carletti, L.; C. Li, J. Sautter, I. Staude, C. De Angelis, T. Li, D. N. Neshev  
**Second harmonic generation in monolithic lithium niobate metasurfaces**  
 Optics Express 27 (23) (2019) p. 33391-33398, ISSN 1094-4087
- Chen, Y.; M. Fink, F. Steinlechner, J.P. Torres, R. Ursin  
**Hong-Ou-Mandel interferometry on a biphoton beat note**  
 Npj Quantum Information 5 (2019) p. 43, ISSN 2056-6387
- Chung, H.; C.-H. Lee, K.-H. Huang, S.-L. Yang, K. Wang, A. S. Solntsev, A. A. Sukhorukhov, F. Setzpfandt, Y.-H. Chen  
**Broadband on-chip polarization mode splitters in lithium niobate integrated adiabatic couplers**  
 Optics Express 27(2) (2019) p. 1632-1645, ISSN 1094-4087
- Claus, I.; K. Frey, T. Hönle, M. Francke, R. Brunner, R. Brüning, A. Reichenbach  
**Comprehensive optical design model of the goldfish eye and quantitative simulation of the consequences on the accommodation mechanism**  
 Vision Research 154 (2019) p. 115-121, ISSN 0042-6989
- Danson, C.; C. Haefner, J. Bromage, T. Butcher, J.-C.-F. Chanteloup, E. A. Chowdhury, A. Galvanauskas, L. A. Gizzi, J. Hein, D. I. Hillier, N. W. Hopps, Y. Kato, E. A. Khazanov, R. Kodama, G. Korn, R. Li, Y.  
**Petawatt and exawatt class lasers worldwide**  
 High Power Laser Science and Engineering 7 (2019) p. e54, ISSN 2095-4719
- Danz, N.; B. Hofer, E. Forster, T. Flügel-Paul, T. Harzendorf, P. Dannberg, R. Leitel, S. Kleinle, R. Brunner  
**Miniature integrated micro-spectrometer array for snap shot multispectral sensing**  
 Optics Express 27 (4) (2019) p. 5719-5728, ISSN 1094-4087
- Dietrich, K.; M. Zilk, M. Steglich, T. Siefke, U. Hübner, T. Pertsch, C. Rockstuhl, A. Tünnermann, E. B. Kley  
**Merging top-down and bottom-up approaches to fabricate artificial photonic nanomaterials with a deterministic electric and magnetic response**  
 Advanced Functional Materials 30 (2019) p. 1905722, ISSN 1616-301X

- Dietrich, P.; S. Heist, M. Landmann, P. Kühmstedt, G. Notni  
**BICOS-An Algorithm for Fast Real-Time Correspondence Search for Statistical Pattern Projection-Based Active Stereo Sensors**  
Applied Sciences-basel 9 (16) (2019) p. 3330, ISSN 0003-6951
- Ecker, S.; F. Bouchard, L. Bulla, F. Brandt, O. Kohout, F. Steinlechner, R. Fickler, M. Malik, Y. Guryanova, R. Ursin, M. Huber  
**Overcoming Noise in Entanglement Distribution**  
PHYSICAL REVIEW X 9 (4) (2019) p. 041042, ISSN 2160-3308
- Elsmann, T.; M. Becker, O. Olusoji, S. Unger, K. Wondraczek, C. Aichele, F. Lindner, A. Schwuchow, J. Nold, M. Rothhardt  
**Two-step-model of photosensitivity in cerium-doped fibers**  
Optical Materials Express 9 (4) (2019) p. 1654-1666, ISSN 2159-3930
- Elu, U.; T. Steinle, D. Sanchez, L. Maidment, K. Zawilski, R. Schunemann, U.D. Zeitner, C. Simon-Boisson, J. Biegert  
**Table-top high-energy 7  $\mu\text{m}$  OPCPA and 260 mJ Ho:YLF pump laser**  
Optics Letters 44 (13) (2019) p. 3194-3197, ISSN 0146-9592
- Fink, M.; F. Steinlechner, J. Handsteiner, J.P. Dowling, T. Scheidl, R. Ursin  
**Entanglement-enhanced optical gyroscope**  
NEW JOURNAL OF PHYSICS 21 (2019) p. 053010, ISSN 1367-2630
- Geib, N.; M. Zilk, T. Pertsch, F. Eilenberger  
**Common pulse retrieval algorithm: a fast and universal method to retrieve ultrashort pulses**  
Optica 6 (4) (2019) p. 495-505, ISSN 2334-2536
- George, A.; C. Neumann, D. Kaiser, R. Mupparapu, T. Lehnert, U. Hübner, Z. Tang, A. Winter, U. Kaiser, I. Staude  
**Controlled growth of transition metal dichalcogenide monolayers using Knudsen-type effusion cells for the precursors**  
Journal of Physics: Materials 2 (1) (2019) p. 016001
- Gerz, D.; W. Schweinberger, T.P. Butler, T. Siefke, M. Heusinger, T. Amotchkina, V. Pervak, U. Zeitner, I. Pupeza  
**Mid-infrared long-pass filter for high-power applications based on grating diffraction**  
Optics Letters 44 (12) (2019) p. 3014-3017, ISSN 0146-9592
- Ghazaryan, L.; Y. Sekman, S. Schröder, C. Muhlig, I. Stevanovic, R. Botha, M. Aghaee, M. Creatore, A. Tünnermann, A. Szeghalmi  
**On the Properties of Nanoporous SiO<sub>2</sub> Films for Single Layer Antireflection Coating**  
Advanced Engineering Materials 21 (6) (2019) p. 1801229, ISSN 1438-1656
- Gierschke, P.; C. Jauregui, T. Gottschall, J. Limpert  
**Relative amplitude noise transfer function of an Yb<sup>3+</sup>-doped fiber amplifier chain**  
Optics Express 27 (12) (2019) p. 17041-17050, ISSN 1094-4087
- Goldenstein, J.; P. Poschmann, S. G.M. Händschke, P. Walgenbach  
**Global and local orientation in organisational actorhood: A comparative study of large corporations from Germany, the United Kingdom, and the United States**  
European Journal of Cultural and Political Sociology 6 (2) (2019) p. 201-236, ISSN 2325-4823
- Gottwald, A.; K. Wiese, T. Siefke, M. Richter  
**Validation of thin film TiO<sub>2</sub> optical constants by reflectometry and ellipsometry in the VUV spectral range**  
Measurement Science and Technology 30 (4) (2019) p. 045201, ISSN 0957-0233
- Harhausen, J.; R. Foest, O. Stenzel, S. Wilbrandt, C. Franke, R.P. Brinkmann  
**Concepts for in situ characterization and control of plasma ion assisted deposition processes**  
Thin Solid Films 673 (2019) p. 94-103, ISSN 0040-6090
- Heck, M.; G. Schwartz, R.G. Krämer, D. Richter, T.A. Goebel, C. Matzdorf, A. Tünnermann, S. Nolte  
**Control of higher-order cladding mode excitation with tailored femtosecond-written long period fiber gratings**  
Optics Express 27 (4) (2019) p. 4292-4303, ISSN 1094-4087
- Heck, M.; J.C. Gauthier, A. Tünnermann, R. Vallee, S. Nolte, M. Bernier  
**Long period fiber gratings for the mitigation of parasitic laser effects in mid-infrared fiber amplifiers**  
Optics Express 27 (15) (2019) p. 21347-21357, ISSN 1094-4087
- Heck, M.; R.G. Krämer, T. Ullsperger, T.A. Goebel, D. Richter, A. Tünnermann, S. Nolte  
**Efficient long period fiber gratings inscribed with femtosecond pulses and an amplitude mask**  
Optics Letters 44 (16) (2019) p. 3980-3983, ISSN 0146-9592
- Herffurth, T.; M. Trost, M. Beier, R. Steinkopf, N. Heidler, T. Pertermann, S. Schröder  
**Assessing surface imperfections of freeforms using a robotic light scattering sensor**  
Optical Engineering 58 (9) (2019) p. 092609, ISSN 0091-3286

- Hilpert, E.; J. Hartung, H. von Lukowicz, T. Herffurth, N. Heidler  
**Design, additive manufacturing, processing, and characterization of metal mirror made of aluminum silicon alloy for space applications**  
 Optical Engineering 58 (9) (2019) p. 092613, ISSN 0091-3286
- Jin, C.; M. Afsharnia, R. Berlich, S. Fasold, C. Zou, D. Arslan, I. Staude, T. Pertsch, F. Setzpfandt  
**Dielectric metasurfaces for distance measurements and three-dimensional imaging**  
 Advanced Photonics 1(3) (2019) p. 036001, ISSN 2577-5421
- Jisha, C.; A. Alberucci, J. Beeckman, S. Nolte  
**Self-Trapping of Light Using the Pancharatnam-Berry Phase**  
 Physical Review X 9 (2) (2019) p. 021051, ISSN 2160-3308
- Jisha, C.; A. Alberucci, J. Beeckman, S. Nolte  
**Non-linear localization via Pancharatnam-Berry phase**  
 Optics & Photonics News Dec (2019) p. 47
- Jisha, C.; J. Beeckman, F. Van Acker, K. Neyts, S. Nolte, A. Alberucci  
**Generation of multiple solitons using competing nonlocal non-linearities**  
 Optics Letters 44 (5) (2019) p. 1162-1165, ISSN 0146-9592
- Jisha, C.; S. Nolte, A. Alberucci  
**Polarization-insensitive wavefront shaping using the Pancharatnam-Berry phase**  
 Optics Letters 44 (22) (2019) p. 5517-5520, ISSN 0146-9592
- Kämmer, H.; G. Matthäus, K.A. Lammers, C. Vetter, M. Chambonneau, S. Nolte  
**Origin of Waveguiding in Ultrashort Pulse Structured Silicon**  
 Laser & Photonics Reviews 13 (2) (2019) p. 1800268, ISSN 1863-8880
- Knopf, H.; N. Lundt, T. Bucher, S. Höfling, S. Tongay, T. Taniguchi, K. Watanabe, I. Staude, U. Schulz, C. Schneider, F. Eilenberger  
**Integration of atomically thin layers of transition metal dichalcogenides into high-Q, monolithic Bragg-cavities: an experimental platform for the enhancement of the optical interaction in 2D-materials**  
 Optical Materials Express 9 (2) (2019) p. 598-610, ISSN 2159-3930
- Krämer, R.; C. Matzdorf, A. Liem, V. Bock, W. Middents, T.A. Goebel, M. Heck, D. Richter, T. Schreiber, A. Tünnermann, S. Nolte  
**Femtosecond written fiber Bragg gratings in ytterbium-doped fibers for fiber lasers in the kilowatt regime**  
 Optics Letters 44 (4) (2019) p. 723-726, ISSN 0146-9592
- Kühl, S.; M. Mozaffari, C. Paetz, S. Schröder, M. Trost, G. Notni  
**Streulichtsimulation für Beleuchtungsoptiken**  
 Photonik 4 (2019) p. 65-69
- Lammers, K.; M. Ehrhardt, T. Malendevych, X.Y. Xu, C. Vetter, A. Alberucci, A. Szameit, S. Nolte  
**Embedded nanograting-based waveplates for polarization control in integrated photonic circuits**  
 Optical Materials Express 9 (6) (2019) p. 2560-2572, ISSN 2159-3930
- Landmann, M.; S. Heist, P. Dietrich, P. Lutzke, I. Gebhart, J. Templin, P. Kühmstedt, A. Tünnermann, G. Notni  
**High-speed 3D thermography**  
 Optics and Lasers in Engineering 121 (2019) p. 448-455, ISSN 0143-8166
- Löchner, F.; R. Mupparapu, M. Steinert, A. George, Z. Tang, A. Turchanin, T. Pertsch, I. Staude, F. Setzpfandt  
**Controlling second-harmonic diffraction by nanopatterning MoS<sub>2</sub> monolayers**  
 Optics Express 27 (24) (2019) p. 376062, ISSN 1094-4087
- Lu, X.; O. Rodenko, Y.Q. Zhang, H. Gross  
**Efficient simulation of autofluorescence effects in microscope lenses**  
 Applied Optics 58 (13) (2019) p. 3589-3596, ISSN 1559-128X
- Lu, X.; Y.Q. Zhang, H. Gross  
**General analysis and optimization strategy to suppress autofluorescence in microscopic lenses**  
 Applied Optics 58 (27) (2019) p. 7404-7415, ISSN 1559-128X
- Lundt, N.; M. Klaas, E. Sedov, M. Waldherr, H. Knopf, M. Blei, S. Tongay, S. Klembt, T. Taniguchi, K. Watanabe, U. Schulz, A. Kavokin, S. Höfling, F. Eilenberger, C. Schneider  
**Magnetic-field-induced splitting and polarization of monolayer-based valley exciton polaritons**  
 Physical Review B 100 (2019) p. 121303, ISSN 1098-0121
- Maes, F.; C. Stihler, L.P. Pleau, V. Fortin, J. Limpert, M. Bernier, R. Vallee  
**3.42 μm lasing in heavily-erbium-doped fluoride fibers**  
 Optics Express 27 (3) (2019) p. 2170-2183, ISSN 1094-4087
- Merx, S.; J. Stock, H. Gross  
**Fast computation and characterization of perturbed Bessel-Gauss beams**  
 Journal of the Optical Society of America A-Optics Image Science and Vision 36 (11) (2019) p. 1892-1897, ISSN 1084-7529

Meyer, T.; R. Ackermann, R. Kammel, M. Schmitt, S. Nolte, A. Tünnermann, J. Popp  
**CARS-imaging guidance for fs-laser ablation precision surgery**  
Analyst 144 (24) (2019) p. 7310-7317, ISSN 0003-2654

Muniz, A.; A. Alberucci, C. P. Jisha, M. Monika, S. Nolte, R. Morandotti, U. Peschel  
**Kapitza light guiding in photonic mesh lattice**  
Optics Letters 44 (24) (2019) p. 6013-6019, ISSN 0146-9592

Nagy, T.; S. Hädrich, P. Simon, A. Blumenstein, N. Walther, R. Klas, J. Buldt, H. Stark, S. Breitenkopf, P. Jojart, I. Seres, Z. Varallyay, T. Eidam, J. Limpert  
**Generation of three-cycle multi-millijoule laser pulses at 318 W average power**  
Optica 6 (11) (2019) p. 1423-1424, ISSN 2334-2536

Occhicone, A.; A. Sinibaldi, F. Sonntag, P. Munzert, N. Danz, F. Michelotti  
**Study of fluid dynamics at the boundary wall of a micro-channel by Bloch surface waves**  
Optics Letters 44 (8) (2019) p. 1932-1935, ISSN 0146-9592

Occhicone, A.; G. Sinibaldi, N. Danz, C.M. Casciola, F. Michelotti  
**Cavitation bubble wall pressure measurement by an electromagnetic surface wave enhanced pump-probe configuration**  
Applied Physics Letters 114 (13) (2019) p. 134101, ISSN 0003-6951

Palma-Vega, G.; T. Walbaum, M. Heinzig, S. Kuhn, C. Hupel, S. Hein, G. Feldkamp, B. Sattler, J. Nold, N. Haarlammert, T. Schreiber, R. Eberhardt, A. Tünnermann  
**Ring-up-doped fiber for the generation of more than 600 W single-mode narrow-band output at 1018 nm**  
Optics Letters 44 (10) (2019) p. 2502-2505, ISSN 0146-9592

Pancrazzi, M.; F. Landini, C. Baccani, M. Romoli, V. Noce, M. Focardi, C. Casini, A. Dinescu, G. Adam, A. Scippa, G. Giachi, M. Beier  
**Updates on the PeNCIL project**  
Nuovo Cimento C-colloquia and Communications in Physics 42 (1) (2019) p. 25

Pfeiffer, K.; L. Ghazaryan, U. Schulz, A. Szeghalmi  
**Wide-Angle Broadband Antireflection Coatings Prepared by Atomic Layer Deposition**  
ACS Applied Materials & Interfaces 11 (24) (2019) p. 21887-21894, ISSN 1944-8244

Pfeiffer, K.; W. Dewald, A. Szeghalmi  
**Antireflection coating with consistent near-neutral color on complex-shaped substrates prepared by ALD**  
Optics Letters 44 (13) (2019) p. 3270-3273, ISSN 0146-9592

Rahimzadegan, A.; D. Arslan, D. Dams, A. Groner, R. Alaei, I. Fernandez-Corbaton, T. Pertsch, I. Staude, C. Rockstuhl  
**Beyond dipolar Huygens' metasurfaces for full-phase coverage and unity transmittance**  
Nanophotonics 9 (1) (2019) p. 75-82, ISSN 2192-8606

Rahimzadegan, A.; D. Arslan, R.N.S. Suryadharma, S. Fasold, M. Falkner, T. Pertsch, I. Staude, C. Rockstuhl  
**Disorder-Induced Phase Transitions in the Transmission of Dielectric Metasurfaces**  
Physical Review Letters 122 (1) (2019) p. 015702, ISSN 0031-9007

Ran, Y.; M. Junghanns, A. Boden, S. Nolte, A. Tünnermann, R. Ackermann  
**Temperature and gas concentration measurements with vibrational ultra-broadband two-beam femtosecond/picosecond coherent anti-Stokes Raman scattering and spontaneous Raman scattering**  
Journal of Raman Spectroscopy 50 (9) (2019) p. 1268-1275, ISSN 0377-0486

Reupert, A.; M. Heck, S. Nolte, L. Wondraczek  
**Side-emission properties of femtosecond laser induced scattering centers in optical fibers**  
Optical Materials Express 9 (6) (2019) p. 2497-2510, ISSN 2159-3930

Ribes-Pleguezuelo, P.; N. Pavel, E. Beckert, C. Damm, A. Bodemann, O.-V. Grigore, G. Croitoru, C.-A. Brandus, N.-T. Vasile, R. Eberhardt, A. Tünnermann,  
**Assembly process and optical performances for a golden laser spark-plug device**  
Optical Engineering 58 (6) (2019) p. 065101, ISSN 0091-3286

Rothhardt, J.; M. Bilal, R. Beerwerth, A.V. Volotka, V. Hilbert, T. Stöhlker, S. Fritzsche, J. Limpert  
**Lifetime measurements of ultrashort-lived excited states in Be-like ions**  
X-Ray Spectrometry 49 (1) (2019) p. 165-168, ISSN 0049-8246

- Samsonova, Z.; S. Hofer, V. Kaymak, S. Alisauskas, V. Shumakova, A. Pugzlys, A. Baltuska, T. Siefke, S. Kroker, A. Pukhov, O. Rosmej, I. Uschmann, C. Spielmann, D. Kartashov  
**Relativistic Interaction of Long-Wavelength Ultrashort Laser Pulses with Nanowires**  
 Physical Review X 9 (2) (2019) p. 021029, ISSN 2160-3308
- Saravi, S.; T. Pertsch, F. Setzpfandt  
**Photonic crystal waveguides as sources of counterpropagating factorizable biphoton states**  
 Optics Letters 44 (1) (2019) p. 69-72, ISSN 0146-9592
- Saule, T.; S. Heinrich, J. Schötz, U. Kleineberg, I. Pupeza, N. Lilienfein, M. Högner, O. deVries, M. Plötner, J. Weitenberg, D. Esser, J. Schulte, P. Russbuedt, J. Limpert, M.F. Kling  
**High-flux ultrafast extreme-ultraviolet photoemission spectroscopy at 18.4 MHz pulse repetition rate**  
 Nature communications 10 (1) (2019) p. 458, ISSN 2041-1723
- Sautter, J.; L. Xu, A. Miroshnichenko, M. Lysevych, I. Volkovskaya, D. A. Smirnova, R. Camacho-Morales, K. Z. Kamali, F. Karouta, K. Vora, H. H. Tan, M. Kauranen, I. Staude, C. Jagadish, D. N. Neshev, M. Rahmani  
**Tailoring Directional Scattering of Second-Harmonic Generation from (111)-GaAs Nanoantennas**  
 Nano Letters 19 (2019) p. 3905-3911, ISSN 1530-6984
- Schmidt, D.; K. Pollok, G. Matthäus, S. Nolte, F. Langenhorst  
**Nanodeformation in enstatite single crystals: Simulation of micrometeoroid impacts by femtosecond pulsed laser experiments**  
 Geochemistry 79 (4) (2019) p. UNSP 125542, ISSN 0009-2819
- Schulz, U.  
**Hybrid organic-inorganic materials for broadband antireflection coatings: Towards broadening the AR spectral range to address curved lenses and oblique light incidence**  
 SVC-Bulletin Spring 2019 (2019) p. 38-43
- Schwinde, S.; M. Schürmann, R. Schlegel, J. Kinast, R.J. Dorn, J.L. Lizon, S. Tordo, N. Kaiser  
**Protected silver coatings for reflectors**  
 Ceas Space Journal 11 (4) (2019) p. 579-587, ISSN 1868-2502
- Seiboth, F.; M. Kahnt, M. Lyubomirskiy, M. Seyrich, F. Wittwer, T. Ullsperger, S. Nolte, D. Batey, C. Rau, C.G. Schroer  
**Refractive hard x-ray vortex phase plates**  
 Optics Letters 44 (18) (2019) p. 4622-4625, ISSN 0146-9592
- Sepe, E.; A. Sinibaldi, N. Danz, P. Munzert, F. Michelotti  
**Anisotropic Fluorescence Emission and Photobleaching at the Surface of One-Dimensional Photonic Crystals Sustaining Bloch Surface Waves. II. Experiments**  
 Journal of Physical Chemistry C 123 (34) (2019) p. 21176-21184, ISSN 1932-7447
- Sephton, B.; A. Valles, F. Steinlechner, T. Konrad, J.P. Torres, F.S. Roux, A. Forbes  
**Spatial mode detection by frequency upconversion**  
 Optics Letters 44 (3) (2019) p. 586-589, ISSN 0146-9592
- Shcherbakov, M.; F. Eilenberger, I. Staude  
**Interaction of semiconductor metasurfaces with short laser pulses: From non-linear-optical response toward spatiotemporal shaping**  
 Journal of Applied Physics 126 (2019) p. 085705, ISSN 0021-8979
- Simmen, K.; B. Buch, A. Breitbarth, G. Notni  
**Non-destructive inspection system for MAG welding processes by combining multimodal data**  
 Quantitative InfraRed Thermography Journal 0 (2019) p. 0, ISSN 1768-6733
- Sorelli, G.; N. Leonhard, V.N. Shatokhin, C. Reinlein, A. Buchleitner  
**Entanglement protection of high-dimensional states by adaptive optics**  
 New Journal of Physics 21 (2019) p. 023003, ISSN 1367-2630
- Sperrhake, J.; M. Decker, M. Falkner, S. Fasold, T. Kaiser, I. Staude, T. Pertsch  
**Analyzing the polarization response of a chiral metasurface stack by semi-analytic modeling**  
 Optics Express 27 (2) (2019) p. 1236-1248, ISSN 1094-4087
- Stark, H.; J. Buldt, M. Müller, A. Klenke, A. Tünnermann, J. Limpert  
**23 mJ high-power fiber CPA system using electro-optically controlled divided-pulse amplification**  
 Optics Letters 44 (22) (2019) p. 5529-5532, ISSN 0146-9592
- Staude, I.; T. Pertsch, Y. S. Kivshar  
**All-Dielectric Resonant Meta-Optics Lightens up**  
 ACS Photonics 6 (4) (2019) p. 802-814, ISSN 2330-4022
- Stella, U.; L. Boarino, N. De Leo, P. Munzert, E. Descrovi  
**Enhanced Directional Light Emission Assisted by Resonant Bloch Surface Waves in Circular Cavities**  
 ACS Photonics 6 (8) (2019) p. 2073-2082, ISSN 2330-4022

- Steinkopff, A.; C. Jauregui, F. Stutzki, J. Nold, C. Hupel, N. Haarlammert, J. Bierlich, A. Tünnermann, J. Limpert  
**Transverse single-mode operation in a passive large pitch fiber with more than 200  $\mu\text{m}$  mode-field diameter**  
Optics Letters 44 (3) (2019) p. 650-653, ISSN 0146-9592
- Stenzel, O.; S. Wilbrandt  
**Beta-distributed oscillator model as an empirical extension to the Lorentzian oscillator model: Physical interpretation of the  $\beta_{\text{do}}$  model parameters**  
Applied Optics 58 (33) (2019) p. 9318-9325, ISSN 1559-128X
- Stenzel, O.; S. Wilbrandt, S. Stempfhuber, D. Gabler, S.J. Wolleb  
**Spectrophotometric Characterization of Thin Copper and Gold Films Prepared by Electron Beam Evaporation: Thickness Dependence of the Drude Damping Parameter**  
Coatings 9 (3) (2019) p. 181, ISSN 2079-6412
- Stock, C.; T. Siefke, U. Zeitner  
**Metasurface-based patterned wave plates for VIS applications**  
Journal of the Optical Society of America B-optical Physics 36 (5) (2019) p. D97-D102, ISSN 0740-3224
- Stock, J.; M. Beier, J. Hartung, S. Merx, H. Gross  
**Simulation and analysis of optical imaging systems including real freeform components**  
Advanced Optical Technologies 8 (2) (2019) p. 111-117, ISSN 2192-8576
- Szeghalmi, A.  
**Optical Coatings with Atomic Precision**  
Photonics Spectra Jun (2019) p. 78-83, ISSN 0731-1230
- Tadesse, G.; W. Eschen, R. Klas, M. Tschernajew, F. Tuitje, M. Steinert, M. Zilk, V. Schuster, M. Zurch, T. Pertsch, C. Spielmann, J. Limpert, J. Rothhardt  
**Wavelength-scale ptychographic coherent diffractive imaging using a high-order harmonic source**  
Scientific Reports 9 (2019) p. 1735, ISSN 20145-2322
- Tang, Z.; M. Sonntag, H. Gross  
**Ant colony optimization in lens design**  
Applied Optics 58 (23) (2019) p. 6357-6364, ISSN 1559-128X
- Trapp, J.; T.G. Jabbour, G. Kelch, T. Pertsch, M. Decker  
**Hybrid refractive holographic single vision spectacle lenses**  
Journal of the European Optical Society-rapid Publications 15 (2019) p. 14, ISSN 1990-2573
- Turunen, J.; F. Wyrowski  
**Time-dependent physical Stokes parameters and degree of polarization of light**  
Physical Review A 99 (2) (2019) p. 023824, ISSN 1050-2947
- Vaskin, A.; R. Kolkowski, A.F. Koenderink, I. Staude  
**Light-emitting metasurfaces**  
Nanophotonics 8 (7) (2019) p. 1151-1198, ISSN 2192-8606
- Vaskin, A.; S. Mashhadi, M. Steinert, K. E. Chong, D. Keene, S. Nanz, A. Abass, E. Rusak, D.-Y. Choi, I. Fernandez-Corbaton, T. Pertsch, C. Rockstuhl, M. A. Noginov, Y. S. Kivshar, D. N. Neshev, N. Noginova, I. S  
**Manipulation of magnetic dipole emission from  $\text{Eu}^{3+}$  with Mie-resonant dielectric metasurfaces**  
Nano Letters 19 (2) (2019) p. 1015-1022, ISSN 1530-6984
- Vetter, C.; R. Steinkopff, K. Bergner, M. Ornigotti, S. Nolte, H. Gross, A. Szameit  
**Realization of Free-Space Long-Distance Self-Healing Bessel Beams**  
Laser & Photonics Reviews 13 (10) (2019) p. 1900103, ISSN 1863-8880
- von Finck, A.; T. Herffurth, A. Duparré, S. Schröder, M. Lequime, M. Zerrad, S. Liukaityte, C. Amra, S. Achour, M. Chalony, Q. Kuperman, Y. Cornil, A. Bialek, T. Goodman, C. Greenwell, B. Gur, S. Brinkers, G.  
**International round-robin experiment for angle-resolved light scattering measurement**  
Applied Optics 58 (24) (2019) p. 6638-6654, ISSN 1559-128X
- W. Kim, D.; T. Suratwala, S. Schröder  
**Ultraprecision optics fabrication and characterization**  
Optical Engineering 58 (9) (2019) p. 092601, ISSN 0091-3286
- Wang, Z.; S. Zhang, O. Baladron-Zorita, C. Hellmann, F. Wyrowski  
**Application of the semi-analytical Fourier transform to electromagnetic modeling**  
Optics Express 27 (11) (2019) p. 15335-15350, ISSN 1094-4087
- Werdehausen, D.; S. Burger, I. Staude, T. Pertsch, M. Decker  
**Dispersion-engineered nanocomposites enable achromatic diffractive optical elements**  
Optica 6 (8) (2019) p. 1031-1038, ISSN 2334-2536

- Williams, G.; H.-K. Chung, S. Künzel, V. Hilbert, U. Zastra, H. Scott, S. Daboussi, B. Iwan, A. I. Gonzalez, W. Boutu, H. J. Lee, B. Nagler, E. Granados, E. Galtier, P. Heimann, B. Barbre, R.W. Lee, B. I. Cho, P.  
**Impact of free electron degeneracy on collisional rates in plasmas**  
 Physical Review Research 1 (3) (2019) p. 033216
- Wondraczek, L.; A. Grundler, A. Reupert, K. Wondraczek, M.A. Schmidt, G. Pohnert, S. Nolte  
**Biomimetic light dilution using side-emitting optical fiber for enhancing the productivity of microalgae reactors**  
 Scientific Reports 9 (2019) p. 9600, ISSN 20145-2322
- Wong, E.; S. Heist, C. Bräuer-Burchardt, A. Stark, H. Babovsky, R. Kowarschik  
**Optimization-based extrinsic calibration of a three-dimensional sensor composed of an array projector and a single camera**  
 Optical Engineering 58 (10) (2019) p. 104109, ISSN 0091-3286
- Worku, N.; H. Gross  
**Propagation of truncated Gaussian beams and their application in modeling sharp-edge diffraction**  
 Journal of the Optical Society of America A-optics Image Science and Vision 36 (5) (2019) p. 859-868, ISSN 1084-7529
- Xu, Z.; L. Coriand, R. Loeffler, J. Geis-Gerstorfer, Y. Zhou, L. Scheideler, M. Fleischer, F.K. Gehring, F. Rupp  
**Saliva-coated titanium biosensor detects specific bacterial adhesion and bactericide caused mass loading upon cell death**  
 Biosensors & Bioelectronics 129 (2019) p. 198-207, ISSN 0956-5663
- Zhang, Y.; H. Gross  
**Systematic Design of Microscopic Lenses I**  
 Advanced Optical Technology 8 (5) (2019) p. 313, ISSN 2192-8576
- Zhang, Y.; H. Gross  
**Systematic Design of Microscopic Lenses II**  
 Advanced Optical Technology 8 (5) (2019) p. 349, ISSN 2192-8576
- Zhang, Y.; H. Gross  
**Systematic Design of Microscopic Lenses III**  
 Advanced Optical Technology 8 (5) (2019) p. 385, ISSN 2192-8576
- Zou, C.; A. Komar, S. Fasold, J. Bohn, A. Muravsky, A. Murauski, T. Pertsch, D. Neshev, I. Staude  
**Electrically tunable transparent displays for visible light based on dielectric metasurfaces**  
 ACS Photonics 6 (6) (2019) p. 1533-1540, ISSN 2330-4022
- Zou, C.; J. Sautter, F. Setzpfandt, I. Staude  
**Resonant Dielectric Metasurfaces - Active Tuning and Non-linear Effects**  
 Journal of Physics D-Applied Physics 52 (373002) (2019) p. 27, ISSN 0022-3727
- Zubyuk, V.; P. Vabishchevich, M. Shcherbakov, A. Shorokhov, A. Fedotova, S. Liu, G. Keeler, T. Dolgova, I. Staude, I. Brener, A. Fedyanin  
**Low-power absorption saturation in semiconductor metasurfaces**  
 ACS Photonics 6 (2019) p. 2797–2806 , ISSN 2330-4022