

## Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik Mikroelektronik Deutschland (2021)

- Palavesam, Nagarajan; Choi, Jung Han; Hell, Waltraud (2021): Advanced integration technology for fabricating high-speed electro-optical sub-assembly. In: 23rd European Microelectronics and Packaging Conference & Exhibition, EMPC 2021, S.258-262 (Konferenzbeitrag). DOI:10.23919/EMPC53418.2021.9584968.  
Link: <http://publica.fraunhofer.de/documents/N-645335.html>
- Stuhler J., Abdel Hafiz M., Arar B., Bawamia A., Bergner K., Biethahn M., Brakhane S., Didier A., Fortágh J., Halder M., Holzwarth R., Huntemann N., Johanning M., Jördens R., Kaenders W., Karlewski F., Kienle F., Krutzik M., Lessing M., Mehlstäubler T.E., Meschede D., Peik E., Peters A., Schmidt P.O., Siebeneich H., Tamm C., Vogt E., Wicht A., Wunderlich C., Yu J. (2021): Opticlock: Transportable and easy-to-operate optical single-ion clock. In: Measurement: Sensors, Vol.18, Art.100264 (Conference Paper). DOI:10.1016/j.measen.2021.100264.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85121601941&doi=10.1016%2fj.measen.2021.100264&partnerID=40&md5=8d7c8f1239acb1b522ea0385e1afbbee0>
- Glaab J., Lobo-Ploch N., Cho H.K., Filler T., Gundlach H., Guttmann M., Hagedorn S., Lohan S.B., Mehnke F., Schleusener J., Sicher C., Sulmoni L., Wernicke T., Wittenbecher L., Woggon U., Zwicker P., Kramer A., Meinke M.C., Kneissl M., Weyers M., Winterwerber U., Einfeldt S. (2021): Skin tolerant inactivation of multiresistant pathogens using far-UVC LEDs. In: Scientific Reports, Vol.11, No.1, Art.14647 (Article). DOI:10.1038/s41598-021-94070-2.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85110810932&doi=10.1038%2fs41598-021-94070-2&partnerID=40&md5=c6f13adbc02d16a848854badd1e827c6>
- Lachmann M.D., Ahlers H., Becker D., Dinkelaker A.N., Grosse J., Hellmig O., Müntinga H., Schkolnik V., Seidel S.T., Wendrich T., Wenzlawski A., Carrick B., Gaaloul N., Lütcke D., Braxmaier C., Ertmer W., Krutzik M., Lämmerzahl C., Peters A., Schleich W.P., Sengstock K., Wicht A., Windpassinger P., Rasel E.M. (2021): Ultracold atom interferometry in space. In: Nature Communications, Vol.12, No.1, Art.1317 (Article). DOI:10.1038/s41467-021-21628-z.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85101909581&doi=10.1038%2fs41467-021-21628-z&partnerID=40&md5=74d4b8fc622836f549011d0183978aa2>
- Demirbas U., Thesinga J., Kellert M., Reuter S., Sumpf B., Pergament M., Kartner F.X. (2021): Mode-locked Cr:LiSAF laser far off the gain peak: Tunable sub-200-fs pulses near 1  $\mu\text{m}$ . In: Applied Optics, Vol.60, No.29, pp.9054-9061 (Article). DOI:10.1364/AO.440263.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116826679&doi=10.1364%2fAO.440263&partnerID=40&md5=add2fad82dc32e83346f9a1515bd6938>
- Theurer L.S., Sumpf B., Maiwald M., Fricke J., Ginolas A., Tränkle G. (2021): Ten emitter dual-wavelength y-branch DBR laser diode array emitting 1 W at 785 nm with a spectral emission width below 60 pm. In: Journal of Physics Communications, Vol.5, No.10, Art.105017 (Article). DOI:10.1088/2399-6528/ac2e55.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
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85118356025&doi=10.1088%2f2399-  
6528%2fac2e55&partnerID=40&md5=bc202fc969e9ece092568a30486e954f

- Zimmermann F., Beyer J., Röder C., Beyer F.C., Richter E., Irmischer K., Heitmann J. (2021): Current Status of Carbon-Related Defect Luminescence in GaN. In: *Physica Status Solidi (A) Applications and Materials Science*, Vol.218, No.20, Art.2100235 (Review). DOI:10.1002/pssa.202100235.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85113747775&doi=10.1002%2fpssa.202100235&partnerID=40&md5=68d8b3762d57e998a2144a19d69fbc65>
- Wiesner-Reinhold M., Dutra Gomes J.V., Herz C., Tran H.T.T., Baldermann S., Neugart S., Filler T., Glaab J., Einfeldt S., Schreiner M., Lamy E. (2021): Subsequent treatment of leafy vegetables with low doses of UVB-radiation does not provoke cytotoxicity, genotoxicity, or oxidative stress in a human liver cell model. In: *Food Bioscience*, Vol.43, Art.101327 (Article). DOI:10.1016/j.fbio.2021.101327.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85113605816&doi=10.1016%2fj.fbio.2021.101327&partnerID=40&md5=4de5c8406ba6f78f7450d80d40e5212f>
- Tronciu V., Werner N., Wenzel H., Wunsche H.-J. (2021): Feedback Sensitivity of Detuned DBR Semiconductor Lasers. In: *IEEE Journal of Quantum Electronics*, Vol.57, No.5, Art.9502076 (Article). DOI:10.1109/JQE.2021.3101216.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112357165&doi=10.1109%2fjqe.2021.3101216&partnerID=40&md5=d57362f8b97d591745763c7716b76e92>
- Hagedorn S., Mogilatenko A., Walde S., Pacak D., Weinrich J., Hartmann C., Weyers M. (2021): High-Temperature Annealing and Patterned AlN/Sapphire Interfaces. In: *Physica Status Solidi (B) Basic Research*, Vol.258, No.10, Art.2100187 (Article). DOI:10.1002/pssb.202100187.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111456403&doi=10.1002%2fpssb.202100187&partnerID=40&md5=cda73adde69569a2489a4df5c120f931>
- Vu T.N., Tien T.Q., Sumpf B., Klehr A., Fricke J., Wenzel H., Tränkle G. (2021): 16.3 w peak-power pulsed all-diode laser based multi-wavelength master-oscillator power-amplifier system at 964 nm. In: *Applied Sciences (Switzerland)*, Vol.11, No.18, Art.8608 (Article). DOI:10.3390/app11188608.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85115204092&doi=10.3390%2fapp11188608&partnerID=40&md5=0df343ebc2bc5916082fdd800ce177aa>
- Kanthak S., Gebbe M., Gersemann M., Abend S., Rasel E.M., Krutzik M. (2021): Time-domain optics for atomic quantum matter. In: *New Journal of Physics*, Vol.23, No.9, Art.093002 (Article). DOI:10.1088/1367-2630/ac1285.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85115185944&doi=10.1088%2f1367-2630%2fac1285&partnerID=40&md5=19671acb576ffaecf83ee939c71e6195>
- Hausler K., Staske R., Maabdorf A., Ressel P., Stolmacker C., Tränkle G., Crump P. (2021): Pulsed Diode Laser Minibars for Pumping Space-Borne Solid-State Lasers. In: *IEEE Photonics Technology Letters*, Vol.33, No.17, Art.9496283, pp.963-966 (Article). DOI:10.1109/LPT.2021.3099998.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

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85111567662&doi=10.1109%2fLPT.2021.3099998&partnerID=40&md5=7d9bc74f727b4ab184fe4608b728dfbe

- Zimmermann F., Beyer J., Beyer F.C., Gärtner G., Gamov I., Irmischer K., Richter E., Weyers M., Heitmann J. (2021): A carbon-doping related luminescence band in GaN revealed by below bandgap excitation. In: Journal of Applied Physics, Vol.130, No.5, Art.055703 (Article). DOI:10.1063/5.0053940.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112360500&doi=10.1063%2f5.0053940&partnerID=40&md5=e2ae310747bbb5dc4603773b5a0ecd95>
- Zeghuzi A., Koester J.-P., Radziunas M., Christopher H., Wenzel H., Knigge A. (2021): Spatially modulated broad-area lasers for narrow lateral far-field divergence. In: Optics Express, Vol.29, No.16, pp.25133-25141 (Article). DOI:10.1364/OE.430804.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111121010&doi=10.1364%2fOE.430804&partnerID=40&md5=5eef4fee233667660526f871f9d0518f>
- Spasevski L., Buse B., Edwards P.R., Hunter D.A., Enslin J., Foronda H.M., Wernicke T., Mehnke F., Parbrook P.J., Kneissl M., Martin R.W. (2021): Quantification of Trace-Level Silicon Doping in Al<sub>x</sub>Ga<sub>1-x</sub>N Films Using Wavelength-Dispersive X-Ray Microanalysis. In: Microscopy and Microanalysis, Vol.27, No.4, pp.696-704 (Article). DOI:10.1017/S1431927621000568.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109272432&doi=10.1017%2fS1431927621000568&partnerID=40&md5=e7721fff2990b50b965ac8ac8023b8d7>
- Guttmann M., Susilo A., Sulmoni L., Susilo N., Ziffer E., Wernicke T., Kneissl M. (2021): Light extraction efficiency and internal quantum efficiency of fully UVC-transparent AlGaIn based LEDs. In: Journal of Physics D: Applied Physics, Vol.54, No.33, Art.335101 (Article). DOI:10.1088/1361-6463/ac021a.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108448647&doi=10.1088%2f1361-6463%2fac021a&partnerID=40&md5=bdf48686ab20a2c7561e58f175d761e8>
- Sowoidnich K., Oster M., Wimmers K., Maiwald M., Sumpf B. (2021): Shifted excitation Raman difference spectroscopy as enabling technique for the analysis of animal feedstuff. In: Journal of Raman Spectroscopy, Vol.52, No.8, pp.1418-1427 (Article). DOI:10.1002/jrs.6140.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105611438&doi=10.1002%2fjrs.6140&partnerID=40&md5=c7dd04b3b0484eec38a9293274b8d120>
- Wenzel H., Kantner M., Radziunas M., Bandelow U. (2021): Semiconductor laser linewidth theory revisited. In: Applied Sciences (Switzerland), Vol.11, No.13, Art.6004 (Review). DOI:10.3390/app11136004.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109414561&doi=10.3390%2fapp11136004&partnerID=40&md5=dc7933c46dbdb2fba6df72d909a703b6>
- Brox O., Wenzel H., Fricke J., Della Casa P., Maaßdorf A., Matalla M., Wenzel S., Wicht A., Knigge A. (2021): Novel 1064 nm DBR lasers combining active layer removal and surface gratings. In: Electronics Letters, Vol.57, No.14, pp.559-561 (Article). DOI:10.1049/ell2.12192.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

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85109393578&doi=10.1049%2fell2.12192&partnerID=40&md5=06f90ed4dd422d8b913f2a85e713ee55

- Kolbe T., Knauer A., Ruschel J., Rass J., Kyong Cho H., Hagedorn S., Glaab J., Lobo Ploch N., Einfeldt S., Weyers M. (2021): Comparison of Ultraviolet B Light-Emitting Diodes with Single or Triple Quantum Wells. In: *Physica Status Solidi (A) Applications and Materials Science*, Vol.218, No.14, Art.2100100 (Article). DOI:10.1002/pssa.202100100.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106685032&doi=10.1002%2fpssa.202100100&partnerID=40&md5=486dd4f98e3e00374cb7c91e383267c0>
- Schuldt T., Gohlke M., Oswald M., Wüst J., Blomberg T., Döringshoff K., Bawamia A., Wicht A., Lezius M., Voss K., Krutzik M., Herrmann S., Kovalchuk E., Peters A., Braxmaier C. (2021): Optical clock technologies for global navigation satellite systems. In: *GPS Solutions*, Vol.25, No.3, Art.83 (Article). DOI:10.1007/s10291-021-01113-2.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104023984&doi=10.1007%2fs10291-021-01113-2&partnerID=40&md5=2fb05471b758b9b4bf54da15282c3354>
- Marianovich A., Spiekermann S., Brendel M., Wessels P., Neumann J., Weyers M., Kracht D. (2021): Wedged Nd:YVO4 crystal for wavelength tuning of monolithic passively Q-switched picosecond microchip lasers. In: *Optics Express*, Vol.29, No.13, pp.19790-19795 (Article). DOI:10.1364/OE.430870.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107487011&doi=10.1364%2fOE.430870&partnerID=40&md5=63c026f81cb8470f879e454ff5e082fc>
- Sumpf B., Theurer L.S., Maiwald M., Müller A., Maaßdorf A., Fricke J., Ressel P., Tränkle G. (2021): 783 nm wavelength stabilized DBR tapered diode lasers with a 7 W output power. In: *Applied Optics*, Vol.90, No.18, pp.5418-5423 (Article). DOI:10.1364/AO.422688.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108268786&doi=10.1364%2fAO.422688&partnerID=40&md5=b14552a03c98afb029f925a3060cae01>
- Torun C.G., Schneider P.-I., Hammerschmidt M., Burger S., Munns J.H.D., Schröder T. (2021): Optimized diamond inverted nanocones for enhanced color center to fiber coupling. In: *Applied Physics Letters*, Vol.118, No.23, Art.234002 (Article). DOI:10.1063/5.0050338.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107945438&doi=10.1063%2f5.0050338&partnerID=40&md5=9729436baa955824d7c7258c197e304a>
- Arslan S., Boni A., Maasdorf A., Erbert G., Martin D., Fricke J., Crump P. (2021): Vertical Design Approach for Suppressing Power Saturation in GaAs-Based High-Power Diode Lasers. In: *2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper)*. DOI:10.1109/CLEO/Europe-EQEC52157.2021.9542748.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117604009&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9542748&partnerID=40&md5=d201d48f706143d0d0f1f837b4bf382e>

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**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Crump P., Meissner-Schenk A., Kaul T., Strohmaier S., Karow M.M., Boni A., Maasdorf A., Martin D., Trankle G. (2021): Increased Conversion Efficiency at 800 W Continuous Wave Output from Single 1-cm Diode Laser Bars at 940 nm. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9541885.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117595890&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9541885&partnerID=40&md5=f306ff228bb7a30536fca1b18c782bdc>
- Werner N., Hauser S., Paschke K. (2021): Experimental investigation of optical feedback from periodically poled crystals for nonlinear frequency conversion. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9541730.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117576981&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9541730&partnerID=40&md5=1857e95907f1991e4cc26831b5ea402b>
- Christopher H., Zeghuzi A., Klehr A., Koester J.-P., Wenzel H., Knigge A. (2021): Experimental investigation of nanosecond pulsed tapered-waveguide lasers obtaining extremely high brightness values. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9542618.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117571062&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9542618&partnerID=40&md5=8cddd30b13afda1fa048d4f21c4ae27b>
- Sumpf B., Theurer L.S., Maiwald M., Muller A., Maasdorf A., Fricke J., Ressel P., Trankle G. (2021): DBR-tapered lasers at 783 nm with narrowband emission and output powers up to 7 W. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9541760.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117570790&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9541760&partnerID=40&md5=bd384e4a4e36bc330d3bc53cd1bee221>
- Blume G., Drees M., Pohl J., Feise D., Sahm A., Paschke K. (2021): Miniaturized Master-Oscillator Power-Amplifier emitting at 626 nm. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9542320.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117560811&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9542320&partnerID=40&md5=04a63469466d3abb11928cd12afb2af5>
- Mehnke F., Kuhn C., Guttmann M., Sulmoni L., Montag V., Glaab J., Wernicke T., Kneissl M. (2021): Electrical and optical characteristics of highly transparent MOVPE-grown AlGaIn-based tunnel heterojunction LEDs emitting at 232 nm. In: Photonics Research, Vol.9, No.6, pp.1117-1123 (Article). DOI:10.1364/PRJ.414315.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107013880&doi=10.1364%2fPRJ.414315&partnerID=40&md5=8fe2538ac1e324868232c3d4912d9f28>
- Strangfeld A., Kanthak S., Schiemangk M., Wiegand B., Wicht A., Ling A., Krutzik M. (2021): Prototype of a compact rubidium-based optical frequency reference for operation on nanosatellites. In: Journal of the Optical Society of America B: Optical Physics, Vol.38, No.6, pp.1885-1891 (Article). DOI:10.1364/JOSAB.420875.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

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85106366938&doi=10.1364%2fJOSAB.420875&partnerID=40&md5=ed21b52d7b446c2129a02c9f33240a1f

- Feneberg M., Romero F., Goldhahn R., Wernicke T., Reich C., Stellmach J., Mehnke F., Knauer A., Weyers M., Kneissl M. (2021): Origin of defect luminescence in ultraviolet emitting AlGaIn diode structures. In: Applied Physics Letters, Vol.118, No.20, Art.202101 (Article). DOI:10.1063/5.0047021.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106580523&doi=10.1063%2f5.0047021&partnerID=40&md5=4ec7a975d47a96116c0e98c21ffaa832>
- Wenzel S., Brox O., Casa P.D., Wenzel H., Knigge A., Arar B., Nechayev S., Kreuzmann S., Wicht A. (2021): Ultra-narrow linewidth GaAs-based DBR Lasers. In: 2021 Conference on Lasers and Electro-Optics, CLEO 2021 - Proceedings (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120488396&partnerID=40&md5=4a7030bd0e891280f056ab18b628f3c7>
- Hausler K., Staske R., Maasdorf A., Ressel P., Stolmacker C., Trankle G., Crump P. (2021): Laser Diodes as Reliable Pump Source for Space-Borne Methane Remote Sensing Lidar System. In: 2021 Conference on Lasers and Electro-Optics, CLEO 2021 - Proceedings (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120471335&partnerID=40&md5=20f816f0e058c5a516a6a6c7aa3771ef>
- Auth D., Lautenschlager J., Weber C., Kazakov D., Piccardo M., Klehr A., Knigge A., Hillbrand J., Schwarz B., Capasso F., Breuer S. (2021): Comb injection into a single-mode laser. In: 2021 Conference on Lasers and Electro-Optics, CLEO 2021 - Proceedings (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120461926&partnerID=40&md5=d7252e6cd4776d9cb255f949245bf811>
- Laucht A., Hohls F., Ubbelohde N., Gonzalez-Zalba M.F., Reilly D.J., Stobbe S., Schröder T., Scarlino P., Koski J.V., Dzurak A., Yang C.-H., Yoneda J., Kuemmeth F., Bluhm H., Pla J., Hill C., Salfi J., Oiwa A., Muhonen J.T., Verhagen E., LaHaye M.D., Kim H.H., Tsen A.W., Culcer D., Geresdi A., Mol J.A., Mohan V., Jain P.K., Baugh J. (2021): Roadmap on quantum nanotechnologies. In: Nanotechnology, Vol.32, No.16, Art.162003 (Review). DOI:10.1088/1361-6528/abb333.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85101362584&doi=10.1088%2f1361-6528%2fabbb333&partnerID=40&md5=50dec425b968cd9c65c3cee18031f139>
- Freier E., Glaab J., Ruschel J., Hoffmann V., Kang J.H., Norman-Reiner M., Wenzel H., Kneissl M., Einfeldt S. (2021): Influence of the hydrogen level in (InAlGa)N-based laser diodes on the stability of the device's operating voltage. In: Journal of Physics D: Applied Physics, Vol.54, No.13, Art.135103 (Article). DOI:10.1088/1361-6463/abd4a5.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85100526759&doi=10.1088%2f1361-6463%2fabd4a5&partnerID=40&md5=f7e1e7ec13b653242c8f2b1c0e5084a8>
- Kobylinski S., Reble C., Schanzer S., Gersonde I., Wiora G., Lobo Ploch N., Karrer H., Kolbe L., Khazaka G., Lademann J., Meinke M.C. (2021): Noninvasive measurement of the 308 nm LED-based UVB protection factor of sunscreens. In: Journal of Biophotonics, Vol.14, No.4, Art.e202000453 (Article). DOI:10.1002/jbio.202000453.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

85099769605&doi=10.1002%2fjbio.202000453&partnerID=40&md5=ef06f4ca3f1b34b89b186d7445a1cbfe

- Hübner M., Wilkens M., Eppich B., Maaßdorf A., Martin D., Ginolas A., Basler P.S., Crump P. (2021): A 1.4 kW 780 nm pulsed diode laser, high duty cycle, passively side-cooled pump module. In: Optics Express, Vol.29, No.7, pp.9749-9757 (Article). DOI:10.1364/OE.416527. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102660323&doi=10.1364%2fOE.416527&partnerID=40&md5=991056a699b1b3f435a26324335ef401>
- Kirchhof J.N., Weinel K., Heeg S., Deinhart V., Kovalchuk S., Höflich K., Bolotin K.I. (2021): Tunable Graphene Phononic Crystal. In: Nano Letters, Vol.21, No.5, pp.2174-2182 (Article). DOI:10.1021/acs.nanolett.0c04986. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85101805708&doi=10.1021%2fac.nanolett.0c04986&partnerID=40&md5=c7187744a642f206e72b68b1ca55aa51>
- Tawfieq M., Fricke J., Stölmacker C., della Casa P., Andersen P.E., Sumpf B., Tränkle G. (2021): Spatial filtering of a six-wavelength DBR-RW laser in a MOPA system. In: Applied Optics, Vol.60, No.7, pp.1864-1870 (Article). DOI:10.1364/AO.414883. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102840360&doi=10.1364%2fAO.414883&partnerID=40&md5=2fd10d96b619f246f6f565aa316dfa11>
- Zeghuzi A., Christopher H., Klehr A., Koester J.-P., Wenzel H., Knigge A. (2021): High-Brightness Nanosecond-Pulse Operation from Tapered-Ridge-Waveguide Lasers. In: IEEE Photonics Technology Letters, Vol.33, No.3, Art.9306837, pp.151-154 (Article). DOI:10.1109/LPT.2020.3047150. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098756477&doi=10.1109%2fLPT.2020.3047150&partnerID=40&md5=b428697ffc9060f0682636bf20c9b582>
- Hjort F., Enslin J., Cobet M., Bergmann M.A., Gustavsson J., Kolbe T., Knauer A., Nippert F., Häusler I., Wagner M.R., Wernicke T., Kneissl M., Haglund Å. (2021): A 310 nm Optically Pumped AlGaIn Vertical-Cavity Surface-Emitting Laser. In: ACS Photonics, Vol.8, No.1, pp.135-141 (Article). DOI:10.1021/acsphotonics.0c01382. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85099071422&doi=10.1021%2facphotonics.0c01382&partnerID=40&md5=251b2ec147eda81b768c887ad4dc72dc>
- Pyrlik C., Goossen-Schmidt N., Hassan M.T., Bawamia A., Fricke J., Knigge A., Maasdorf A., Schiemangk M., Wenzel H., Wicht A. (2021): High Power Distributed Bragg Reflector Lasers at 689.45 nm for Quantum Technology Applications. In: IEEE Photonics Technology Letters (Article). DOI:10.1109/LPT.2021.3139433. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122575493&doi=10.1109%2fLPT.2021.3139433&partnerID=40&md5=301a6a18dacefb37db9d692425fc0e37>
- Wilkens M., Erbert G., Wenzel H., Maaßdorf A., Fricke J., Knigge A., Crump P. (2021): Externally wavelength-stabilized single mode lasers with 65% conversion efficiency and 50 pm spectral width at 1 W output. In: Optics InfoBase Conference Papers (Conference Paper). DOI:10.1109/OIP.2021.9635555. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120434755&partnerID=40&md5=427b1703ffd8b6e29a9cf65fde32cef2>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Crump P., Meissner-Schenk A., Kaul T., Strohmaier S., Karow M.M., Boni A., Maaßdorf A., Martin D., Tränkle G. (2021): Increased conversion efficiency at 800 W continuous wave output from single 1-cm diode laser bars at 940 nm. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120433947&partnerID=40&md5=f209c3abc625b883551d378972b84879>
- Christopher H., Zeghuzi A., Klehr A., Koester J.-P., Wenzel H., Knigge A. (2021): Experimental investigation of nanosecond pulsed tapered-waveguide lasers obtaining extremely high brightness values. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120426675&partnerID=40&md5=bf9b2402c7bd3bebab16db41f4653c00>
- Sumpf B., Theurer L.S., Maiwald M., Müller A., Maaßdorf A., Fricke J., Ressel P., Tränkle G. (2021): DBR-tapered lasers at 783 nm with narrowband emission and output powers up to 7 W. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120422449&partnerID=40&md5=555ec3b0fe8cfde0708a868c276702f4>
- Werner N., Häuser S., Paschke K. (2021): Experimental investigation of optical feedback from periodically poled crystals for nonlinear frequency conversion. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120420818&partnerID=40&md5=cbc872277af862e2012ee46da3c1ecfe>
- Kneissl M., Cardinali G., Enslin J., Guttmann M., Kuhn C., Mehnke F., Schilling M., Sulmoni L., Susilo N., Wernicke T., Cho H.K., Glaab J., Ruschel J., Hagedorn S., Lobo-Ploch N., Netzel C., Rass J., Walde S., Winterwerber U., Einfeldt S., Weyers M. (2021): Advances towards deep-UV light emitting diode technologies. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120411644&partnerID=40&md5=36d8ce0a81e3c506d71361f46f4fb61a>
- Arslan S., Boni A., Maaßdorf A., Erbert G., Martin D., Fricke J., Crump P. (2021): Vertical design approach for suppressing power saturation in gas-based high-power diode lasers. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120409495&partnerID=40&md5=ecea067668d040380bef107ed078449e>
- Blume G., Drees M., Pohl J., Feise D., Sahm A., Paschke K. (2021): Miniaturized master-oscillator power-amplifier emitting at 626 nm. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120403660&partnerID=40&md5=499e1c85ae864cd9e0d1f82ee0284621>
- Auth D., Lautenschläger J., Weber C., Kazakov D., Piccardo M., Klehr A., Knigge A., Hillbrand J., Schwarz B., Capasso F., Breuer S. (2021): Comb injection into a single-mode laser. In: Optics InfoBase Conference Papers, Art.SF2F.2 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120040112&partnerID=40&md5=7abfb782e722b4e59c41ce8b75a1f9ac>
- Häusler K., Staske R., Maaßdorf A., Ressel P., Stölmacker C., Tränkle G., Crump P. (2021): Laser diodes as reliable pump source for space-borne methane remote sensing lidar system. In: Optics InfoBase Conference Papers, Art.JTu3A.108 (Conference Paper). DOI:



Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119497551&partnerID=40&md5=baf2977f1ebf6a883a75e2258be61f72>

- Wenzel S., Brox O., della Casa P., Wenzel H., Knigge A., Arar B., Nechayev S., Kreutzmann S., Wicht A. (2021): Ultra-narrow linewidth GaAs-based DBR lasers. In: Optics InfoBase Conference Papers, Art.ATh4G.3 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119477336&partnerID=40&md5=a563b45582d6c96c74121f6f80543492>
- Boni A., Arslan S., Erbert G., Della Casa P., Martin D., Crump P. (2021): Epitaxial design progress for high power, efficiency, and brightness in 970 nm broad area lasers. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11668, Art.1166807 (Conference Paper). DOI:10.1117/12.2578184.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108029250&doi=10.1117%2f12.2578184&partnerID=40&md5=191179d24f8842593b6a66f96962edd3>
- Hildenstein P., Sahm A., Feise D., Jdrzejczyk D., Paschke K., Tränkle G. (2021): High power, high beam quality miniaturized diode laser module for direct material processing around 980 nm. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11668, Art.1166804 (Conference Paper). DOI:10.1117/12.2578430.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108023265&doi=10.1117%2f12.2578430&partnerID=40&md5=136d83a98a2093c1fe498e55093ed538>
- Blume G., Kaspari C., Pohl J., Feise D., Wenzel H., Fricke J., Ressel P., Ginolas A., Sahm A., Knigge A., Paschke K. (2021): Single mode 660 nm master-oscillator power-amplifier with 500 mW optical output power. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11667, Art.116670C (Conference Paper). DOI:10.1117/12.2576406.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107184621&doi=10.1117%2f12.2576406&partnerID=40&md5=011879b2d37b78eb737050bb2b8793f6>
- Müller A., Sumpf B. (2021): Alternating dual-wavelength second harmonic generation at 532 nm using a Y-branch distributed Bragg reflector diode laser. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11670, Art.116701H (Conference Paper). DOI:10.1117/12.2578115.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107031333&doi=10.1117%2f12.2578115&partnerID=40&md5=5d7057c8aadf19172f9a2ffa90c0d766>
- Crump P., Blume G., Feise D., Elattar M., Ginolas A., Fricke J., Maaßdorf A., Tränkle G., Paschke K., Albrodt P., Hamperl J., Georges P., Lucas-Leclin G. (2021): Single-pass tapered semiconductor optical amplifiers and modules for efficient coherent beam combining. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11705, Art.117050M (Conference Paper). DOI:10.1117/12.2578512.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106764334&doi=10.1117%2f12.2578512&partnerID=40&md5=6c8214d0a591dc3970f0f9b266a92e5b>
- Paoloni C., Basu R., Burhenn M., Hossain M., Heubcsh D., Krozer V., Le T., Letizia R., Limiti E., Magne F., Marilier M., Ramirez A., Rao J.M., Ulisse G., Vidal B., Yacob H. (2021): Sub-THz wireless system with electronic and optoelectronic transmitters. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11711, Art.117110J (Conference Paper). DOI:10.1117/12.2581313.

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106747349&doi=10.1117%2f12.2581313&partnerID=40&md5=2777b6f7cea9024cd693a981909ec342>

- Haghghi N., Moser P., Zorn M., Lott J.A. (2021): 19-element 2D honeycomb VCSEL array. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11704, Art.117040Q (Conference Paper). DOI:10.1117/12.2576846.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106744527&doi=10.1117%2f12.2576846&partnerID=40&md5=18cb89e30227c03a83e25163670006c5>
- Elattar M., Brox O., Della Casa P., Maaßdorf A., Martin D., Wenzel H., Knigge A., Crump P. (2021): Enhanced self-aligned structure for improved lateral brightness in 940 nm high-power broad-area diode lasers. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11705, Art.117050N (Conference Paper). DOI:10.1117/12.2578190.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106732287&doi=10.1117%2f12.2578190&partnerID=40&md5=e80189e41ebe5410b19aa8d31909f662>
- Tomm J.W., Ruschel J., Glaab J., Mahler F., Kolbe T., Einfeldt S. (2021): On the carrier kinetics in Al(In)GaN quantum wells stressed by high current densities. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11705, Art.117050E (Conference Paper). DOI:10.1117/12.2578049.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106715638&doi=10.1117%2f12.2578049&partnerID=40&md5=0a61ab3a9ea458a628e32f97a604da95>
- Sumpf B., Theurer L.S., Maiwald M., Müller A., Maaßdorf A., Fricke J., Ressel P., Tränkle G. (2021): Narrow spectral linewidth 785 nm DBR tapered lasers with 7 W output power. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11705, Art.117050O (Conference Paper). DOI:10.1117/12.2578354.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106699270&doi=10.1117%2f12.2578354&partnerID=40&md5=dc702e676ccc259f7358c37efceb7a39>
- Strobbia P., Cupil-Garcia V., Crawford B.M., Fales A.M., Pfefer T.J., Liu Y., Maiwald M., Sumpf B., Vo-Dinh T. (2021): Accurate in vivo tumor detection using plasmonic-enhanced shifted-excitation Raman difference spectroscopy (SERDS). In: Theranostics, Vol.11, No.9, pp.4090-4102 (Article). DOI:10.7150/thno.53101.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103432892&doi=10.7150%2fthno.53101&partnerID=40&md5=86844972d4d05625fe93d37b39e9a4b1>
- Cwalina S., Kottke C., Jungnickel V., Freund R., Runge P., Rustige P., Knieling T., Gu-Stoppel S., Albers J., Laske N., Senger F., Wen L., Giovanneschi F., Altuntac E., Ramesh A.N., Gonzalez-Huici M.A., Kuter A., Reddy S. (2021): Fiber-based frequency modulated LiDAR with MEMS scanning capability for long-range sensing in automotive applications. In: 2021 IEEE International Workshop on Metrology for Automotive, MetroAutomotive 2021 - Proceedings, pp.48-53 (Conference Paper). DOI:10.1109/MetroAutomotive50197.2021.9502868.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85114964855&doi=10.1109%2fMetroAutomotive50197.2021.9502868&partnerID=40&md5=d6ae872a223b539d66a44a7ef9e3c050>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Berens P., Walterscheid I., Saalman O., El-Arnauti G. (2021): High resolution multi-aspect SAR imaging of military vehicles. In: Proceedings of the European Conference on Synthetic Aperture Radar, EUSAR, Vol.2021-March, pp.1078-1081 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105990298&partnerID=40&md5=e5d92891a0d20a2dc4ec35f1c5e17c50>
- Stoja E., Konstandin S., Philipp D., Wilke R.N., Betancourt D., Bertuch T., Jenne J., Umathum R., Günther M. (2021): Improving magnetic resonance imaging with smart and thin metasurfaces. In: Scientific Reports, Vol.11, No.1, Art.16179 (Article). DOI:10.1038/s41598-021-95420-w.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112094260&doi=10.1038%2fs41598-021-95420-w&partnerID=40&md5=0e2e8ee499fff187569f42d0c01aa2e2>
- Rosebrock F., Rosebrock J., Cerutti-Maori D., Ender J. (2021): ISAR imaging by integrated compressed sensing, range alignment and autofocus. In: Proceedings of the European Conference on Synthetic Aperture Radar, EUSAR, Vol.2021-March, pp.156-160 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106033450&partnerID=40&md5=3146a8a175622c5e3304eff6d9d9e0c8>
- Gallego Torromé R. (2021): Quantum Illumination with Multiple Entangled Photons. In: Advanced Quantum Technologies, Vol.4, No.11, Art.2100101 (Article). DOI:10.1002/qute.202100101.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85115603298&doi=10.1002%2fqute.202100101&partnerID=40&md5=5932c656d0f66dd2b6315a1587071296>
- Raptakis A., Gounaridis L., Weigel M., Kleinert M., Georgiopoulos M., Mylonas E., Groumas P., Tsokos C., Keil N., Avramopoulos H., Kouloumentas C. (2021): 2D Optical Phased Arrays for Laser Beam Steering Based on 3D Polymer Photonic Integrated Circuits. In: Journal of Lightwave Technology, Vol.39, No.20, pp.6509-6523 (Article). DOI:10.1109/JLT.2021.3099009.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111572731&doi=10.1109%2fJLT.2021.3099009&partnerID=40&md5=049bcc029fe605e8ece09282fcb07ec>
- Palavesam, Nagarajan; Choi, Jung Han; Hell, Waltraud (2021): Advanced integration technology for fabricating high-speed electro-optical sub-assembly. In: 23rd European Microelectronics and Packaging Conference & Exhibition, EMPC 2021, S.258-262 (Konferenzbeitrag). DOI:10.23919/EMPC53418.2021.9584968.  
Link: <http://publica.fraunhofer.de/documents/N-645335.html>
- Li X., Ghassemlooy Z., Zvanovec S., Alves L., Figueiredo M., Zhang M., Maravanchery Mana S., Jungnickel V., Chvojka P. (2021): A Full-digital M-CAP Receiver with Synchronisation and Adaptive Blind Equalisation for Visible Light Communications. In: Journal of Lightwave Technology (Article). DOI:10.1109/JLT.2021.3135468.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85121799861&doi=10.1109%2fJLT.2021.3135468&partnerID=40&md5=24cf24c3f5fe6ee82e6627242a1410a6>
- Mana S.M., Gabra K.G.K., Kouhini S.M., Hellwig P., Hilt J., Jungnickel V. (2021): An Efficient Multi-Link Channel Model for LiFi. In: IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC, Vol.2021-September (Conference Paper). DOI:10.1109/PIMRC50174.2021.9569661.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

85118472726&doi=10.1109%2fPIMRC50174.2021.9569661&partnerID=40&md5=9d9426aa31929c7c9ded75fe48b18b58

- Rustige P., Runge P., Soares F.M., Krause J., Schell M. (2021): A new concept for spatially resolved coherent detection with vertically illuminated photodetectors targeting ranging applications. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11682, Art.1168206 (Conference Paper). DOI:10.1117/12.2576323.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105924011&doi=10.1117%2f12.2576323&partnerID=40&md5=f2d5ebe47819b32fc0f0ba fd89a59ef8>
- Sena M., Erkilinc M.S., Dllpon T., Shariati B., Emmerich R., Fischer J.K., Freund R. (2021): Bayesian Optimization for Nonlinear System Identification and Pre-Distortion in Cognitive Transmitters. In: Journal of Lightwave Technology, Vol.39, No.15, Art.9440888, pp.5008-5020 (Article). DOI:10.1109/JLT.2021.3083676.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107219771&doi=10.1109%2fJLT.2021.3083676&partnerID=40&md5=af2d4047204f86a41 0d42e4bb66313ca>
- Smith J., Naftaly M., Nellen S., Globisch B. (2021): Beam profile characterisation of an optoelectronic silicon lens-integrated pin-pd emitter between 100 ghz and 1 thz. In: Applied Sciences (Switzerland), Vol.11, No.2, Art.465, pp.1-12 (Article). DOI:10.3390/app11020465.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85099240023&doi=10.3390%2fapp11020465&partnerID=40&md5=33572c587575283a0cb 008142c5bbe87>
- Kouhini S.M., Hellwig P., Schulz D., Freund R., Jungnickel V. (2021): Benefits of MIMO Mode Switching, Angular Diversity and Multiuser Multiplexing for LiFi. In: 2021 Optical Fiber Communications Conference and Exhibition, OFC 2021 - Proceedings, Art.9489889 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112064407&partnerID=40&md5=c7851cc7164357baa5a28c2f9c9cba9c>
- Kouhini S.M., Hellwig P., Schultz D., Freund R., Jungnickel V. (2021): Benefits of MIMO mode switching, angular diversity and multiuser multiplexing for LiFi. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120423307&partnerID=40&md5=e4280d5f6d4637ef8ef7f85d60394999>
- Mühle R., Markgraf W., Hilsmann A., Malberg H., Eisert P., Wisotzky E.L. (2021): Comparison of different spectral cameras for image-guided organ transplantation. In: Journal of biomedical optics, Vol.26, No.7 (Article). DOI:10.1117/1.JBO.26.7.076007.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112322965&doi=10.1117%2f1.JBO.26.7.076007&partnerID=40&md5=cefb4801833942d bdc73e0c206acbab>
- Stern S., Barakatain M., Frey F., Fischer J.K., Fischer R.F.H. (2021): Concatenated non-binary coding with 4d constellation shaping for high-throughput fiber-optic communication. In: Optics InfoBase Conference Papers, Art.SpTh2F.3 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120539777&partnerID=40&md5=add0ad666300ed619360569271c4a3a1>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Deumer M., Breuer S., Kohlhaas R., Nellen S., Liebermeister L., Lauck S., Schell M., Globisch B. (2021): Continuous wave terahertz receivers with 4.5 THz bandwidth and 112 dB dynamic range. In: Optics Express, Vol.29, No.25, pp.41819-41826 (Article). DOI:10.1364/OE.443098. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120867216&doi=10.1364%2fOE.443098&partnerID=40&md5=3b76fb491d0a9289379bd19958b5fff4>
- Safari P., Shariati B., Bergk G., Fischer J.K. (2021): Deep Convolutional Neural Network for Network-wide QoT Estimation. In: 2021 Optical Fiber Communications Conference and Exhibition, OFC 2021 - Proceedings, Art.9489926 (Conference Paper). DOI:. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112104909&partnerID=40&md5=fff5af05e45df97707e10b0ad1a544eb>
- Safari P., Shariati B., Bergk G., Fischer J.K. (2021): Deep convolutional neural network for network-wide QoT estimation. In: Optics InfoBase Conference Papers (Conference Paper). DOI:. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120435361&partnerID=40&md5=86d4c035a2ed05d614bdee351a98d807>
- Mana S.M., Jungnickel V., Bober K.L., Hellwig P., Hilt J., Schulz D., Paraskevopoulos A., Freund R., Hirmanova K., Janca R., Chvojka P., Zvanovec S. (2021): Distributed Multiuser MIMO for LiFi: Experiments in an Operating Room. In: Journal of Lightwave Technology, Vol.39, No.18, pp.5730-5743 (Article). DOI:10.1109/JLT.2021.3091385. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112406425&doi=10.1109%2fJLT.2021.3091385&partnerID=40&md5=cf400277f7e9742cf651c1b49bb8c077>
- Bober K.L., Mana S.M., Hinrichs M., Kouhini S.M., Kottke C., Schulz D., Schmidt C., Freund R., Jungnickel V. (2021): Distributed Multiuser MIMO for LiFi in Industrial Wireless Applications. In: Journal of Lightwave Technology, Vol.39, No.11, Art.9388855, pp.3420-3433 (Article). DOI:10.1109/JLT.2021.3069186. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103763474&doi=10.1109%2fJLT.2021.3069186&partnerID=40&md5=059207f52bc00f1f8a9e22bb461622aa>
- Gimpel T., Börner M., Hoffmann V., Lederle-Flamm M., Hedin N., Schade W., Turek T., Nilsson A., Diaz-Morales O. (2021): Electrochemical Carbon Dioxide Reduction on Femtosecond Laser-Processed Copper Electrodes: Effect on the Liquid Products by Structuring and Doping. In: ACS Applied Energy Materials, Vol.4, No.6, pp.5927-5934 (Article). DOI:10.1021/acsaem.1c00759. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85110557150&doi=10.1021%2facsaem.1c00759&partnerID=40&md5=dcc2fc85636281189dfa21f5d7073a8a>
- Linnartz, Jean-Paul; Corrêa, Carina Ribeiro Barbio; Cunha, Thiago Elias B. (2021): ELIoT: New features in LiFi for next-generation IoT. In: Joint European Conference On Networks and Communication and 6G Summit 2021, S.148-153 (Konferenzbeitrag). DOI:10.1109/EuCNC/6GSummit51104.2021.9482478 . Link: <http://publica.fraunhofer.de/documents/N-640260.html>
- Cwalina S., Kottke C., Jungnickel V., Freund R., Runge P., Rustige P., Knieling T., Gu-Stoppel S., Albers J., Laske N., Senger F., Wen L., Giovanneschi F., Altuntac E., Ramesh A.N., Gonzalez-Huici M.A., Kuter A., Reddy S. (2021): Fiber-based frequency modulated LiDAR with MEMS scanning capability for long-range sensing in automotive applications. In: 2021 IEEE International Workshop on Metrology for Automotive, MetroAutomotive 2021 - Proceedings, pp.48-53 (Conference Paper). DOI:10.1109/MetroAutomotive50197.2021.9502868. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

85114964855&doi=10.1109%2fMetroAutomotive50197.2021.9502868&partnerID=40&md5=d6ae872a223b539d66a44a7ef9e3c050

- Fedorov R., Lederle F., Li M., Olszok V., Wöbbing K., Schade W., Hübner E.G. (2021): Formation of Titanium Nitride, Titanium Carbide, and Silicon Carbide Surfaces by High Power Femtosecond Laser Treatment. In: ChemPlusChem, Vol.86, No.9, pp.1231-1242 (Article). DOI:10.1002/cplu.202100118.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105420009&doi=10.1002%2fcplu.202100118&partnerID=40&md5=3a822cb788ba3a28c2e2c17f356d8512>
- Mansourzadeh S., Damyanov D., Vogel T., Wulf F., Kohlhaas R.B., Globisch B., Schultze T., Hoffmann M., Balzer J.C., Saraceno C.J. (2021): High-Power Lensless THz Imaging of Hidden Objects. In: IEEE Access, Vol.9, Art.9312183, pp.6268-6276 (Article). DOI:10.1109/ACCESS.2020.3048781.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85099103231&doi=10.1109%2fACCESS.2020.3048781&partnerID=40&md5=2653884876cc4f7c09f4ba35a1785856>
- Xu Y., Maier P., Blaicher M., Dietrich P.-I., Marin-Palomo P., Hartmann W., Bao Y., Peng H., Billah M.R., Singer S., Troppenz U., Moehrl M., Randel S., Freude W., Koos C. (2021): Hybrid external-cavity lasers (ECL) using photonic wire bonds as coupling elements. In: Scientific Reports, Vol.11, No.1, Art.16426 (Article). DOI:10.1038/s41598-021-95981-w.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112703009&doi=10.1038%2fs41598-021-95981-w&partnerID=40&md5=d4a8a70ec464b5222e798053a9268386>
- Zubow A., Gawlowicz P., Bober K.L., Jungnickel V., Habel K., Dressler F. (2021): Hy-Fi: Aggregation of LiFi and WiFi using MIMO in IEEE 802.11. In: Proceedings - 2021 IEEE 22nd International Symposium on a World of Wireless, Mobile and Multimedia Networks, WoWMoM 2021, Art.9469422, pp.100-108 (Conference Paper). DOI:10.1109/WoWMoM51794.2021.00023.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112428753&doi=10.1109%2fWoWMoM51794.2021.00023&partnerID=40&md5=f7199b41d026879ec0b581bfa6221bca>
- Happach M., De Felipe D., Friedhoff N., Kresse M., Irmischer G., Kleinert M., Zawadzki C., Brinker W., Mohrle M., Keil N., Hofmann W., Schell M. (2021): Influence of losses on the laser voltage drop of the active section. In: Journal of Lightwave Technology, Vol.39, No.17, pp.5523-5530 (Article). DOI:10.1109/JLT.2021.3091584.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112414703&doi=10.1109%2fJLT.2021.3091584&partnerID=40&md5=3c47f75ac915f56fc6d06392443e0136>
- Runge P., Beckerwerth T., Troppenz U., Gruner M., Boerma H., Möhrle M., Schell M. (2021): INP-components for 100 gbaud optical data center communication. In: Photonics, Vol.8, No.1, Art.18, pp.1-10 (Article). DOI:10.3390/photonics8010018.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85099459933&doi=10.3390%2fphotonics8010018&partnerID=40&md5=e60c6b3de356b55def14da90eebbdb04>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Lee M.-H., Nellen S., Soares F., Moehrle M., Rehbein W., Baier M., Schell M. (2021): InP integrated photonic circuit for terahertz spectroscopy up to 4.1 THz bandwidth based on sampled grating lasers. In: 2021 Conference on Lasers and Electro-Optics, CLEO 2021 - Proceedings (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120446372&partnerID=40&md5=0c8e1c31b9fe2bb1d73c7ff01f9cb42d>
- Lee M.-H., Nellen S., Soares F., Moehrle M., Rehbein W., Baier M., Schell M. (2021): InP integrated photonic circuit for terahertz spectroscopy up to 4.1 THz bandwidth based on sampled grating lasers. In: Optics InfoBase Conference Papers, Art.ATu2T.6 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119483091&partnerID=40&md5=e58b859cda79d3e91a8f12c065b88823>
- Carpintero G., Rivera A., Ali M., Gallego D., Garcíá-Munóz L.E., De Felipe D., Keil N., Liebermeister L., Lauck S., Globisch B., Lyubchenko D., Xenidis N., Prados E., Pindado J.M., Rossetti R., Nagel M. (2021): Interconnection challenges on integrated terahertz photonic systems. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11692, Art.116920N (Conference Paper). DOI:10.1117/12.2582982.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105955443&doi=10.1117%2f12.2582982&partnerID=40&md5=2a4d6f82781e66957ad9db62f517fe7e>
- Shariati B., Safari P., Bergk G., Oertel F.I., Karl Fischer J. (2021): Inter-Operator Machine Learning Model Trading over Acumos AI Federated Marketplace. In: 2021 Optical Fiber Communications Conference and Exhibition, OFC 2021 - Proceedings, Art.9489395 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112094067&partnerID=40&md5=057234ee4f0d4b8119b944c944d6c7df>
- Shariati B., Safari P., Bergk G., Oertel F.I., Fischer J.K. (2021): Inter-operator machine learning model trading over acumos AI federated marketplace. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120417524&partnerID=40&md5=46a4f2d56b640b5b3890519150deb5af>
- Macdonald J., März M., Oala L., Samek W. (2021): Interval Neural Networks as Instability Detectors for Image Reconstructions. In: Informatik aktuell, pp.324-329 (Conference Paper). DOI:10.1007/978-3-658-33198-6\_79.  
Link: [https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103281922&doi=10.1007%2f978-3-658-33198-6\\_79&partnerID=40&md5=0c97d4973b4648992a7797e0c5664828](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103281922&doi=10.1007%2f978-3-658-33198-6_79&partnerID=40&md5=0c97d4973b4648992a7797e0c5664828)
- Perestjuk M., Boerma H., Schindler A., Keyvaninia S., Runge P., Schell M. (2021): Inverse-Designed InP-Based Polarization Rotator-Splitter. In: 2021 Optical Fiber Communications Conference and Exhibition, OFC 2021 - Proceedings, Art.9489873 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112100252&partnerID=40&md5=88c5f4b6cc28a0a02e9a6fe6d9dbaef0>
- Perestjuk M., Boerma H., Schindler A., Keyvaninia S., Runge P., Schell M. (2021): Inverse-designed InP-based polarization rotator-splitter. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120420565&partnerID=40&md5=a8c9d0bf2559fc50e6968f0e15e6f481>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Perestjuk M., Boerma H., Schindler A., Runge P., Schell M. (2021): Inverse design strategies for large passive waveguide structures. In: IEEE Photonics Technology Letters, Vol.33, No.5, Art.9336663, pp.259-262 (Article). DOI:10.1109/LPT.2021.3055137.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85100518441&doi=10.1109%2fLPT.2021.3055137&partnerID=40&md5=122e5bf428e35063cbb7ab1e075a5acf>
- Kouhini S.M., Ma Z., Kottke C., Mana S.M., Freund R., Jungnickel V. (2021): LiFi based positioning for indoor scenarios. In: Proceedings of the International Symposium on Wireless Communication Systems, Vol.2021-September (Conference Paper). DOI:10.1109/ISWCS49558.2021.9562207.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118140577&doi=10.1109%2fISWCS49558.2021.9562207&partnerID=40&md5=04774ebfb0a199eb62147b9262fd61be>
- Kouhini S.M., Kottke C., Ma Z., Freund R., Jungnickel V., Muller M., Behnke D., Vazquez M.M., Linnartz J.-P.M.G. (2021): Lifi positioning for industry 4.0. In: IEEE Journal of Selected Topics in Quantum Electronics, Vol.27, No.6, Art.9479791 (Article). DOI:10.1109/JSTQE.2021.3095364.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112762707&doi=10.1109%2fJSTQE.2021.3095364&partnerID=40&md5=f9987263adefb8d6a0f9b5688bdf5024>
- Hausler M., Terhaar R., Gehring H., Wolff M.A., Beutel F., Hartmann W., Walter N., Tillmann M., Wahl M., Rohlicke T., Rahn H.-J., Wernicke D., Perlot N., Rodiger J., Pernice W.H.P., Schuck C. (2021): Multi-channel quantum communication receiver made from waveguide-integrated superconducting nanowire single-photon detectors. In: 2021 Optical Fiber Communications Conference and Exhibition, OFC 2021 - Proceedings, Art.9489497 (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112071937&partnerID=40&md5=74c41ed29a5aa94a2be0438ff2139e94>
- Häußler M., Terhaar R., Gehring H., Wolff M.A., Beutel F., Hartmann W., Walter N., Tillmann M., Wahl M., Röhlicke T., Rahn H.-J., Wernicke D., Perlot N., Rödiger J., Pernice W.H.P., Schuck C. (2021): Multi-channel quantum communication receiver made from waveguide-integrated superconducting nanowire single-photon detectors. In: Optics InfoBase Conference Papers (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120428173&partnerID=40&md5=7d466a5ae4be619b96e7d680d202427f>
- Domenegueti R.R., Conradi H., Kleinert M., Kiesler C., Stefszky M., Herrmann H., Silberhorn C., Andersen U.L., Neergaard-Nielsen J.S., Gehring T. (2021): Nonlinear waveguides for integrated quantum light source. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9542548.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117578997&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9542548&partnerID=40&md5=5a240e223bc412ddc511f84e59bc46a5>
- Domenegueti R.R., Conradi H., Kleinert M., Kiebler C., Stefszky M., Herrmann H., Silberhorn C., Andersen U.L., Neergaard-Nielsen J.S., Gehring T. (2021): Nonlinear waveguides for integrated quantum light source. In: Optics InfoBase Conference Papers (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119971586&partnerID=40&md5=09540bfcf7613beff4c5e081a11d081e>



Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Chorchos L., Ledentsov N., Makarov O., Scholz P., Hecht U., Kottke C., Jungnickel V., Freund R., Shchukin V.A., Kalosha V.P., Turkiewicz J.P., Gerfers F., Ledentsov N. (2021): NRZ, DB, and DMT performance for short-reach VCSEL-based optical interconnects. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11692, Art.116920D (Conference Paper). DOI:10.1117/12.2578553.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105939164&doi=10.1117%2f12.2578553&partnerID=40&md5=dace977c470351bb3455f6e593c3004f>
- Liebermeister L., Nellen S., Kohlhaas R.B., Lauck S., Deumer M., Breuer S., Schell M., Globisch B. (2021): Optoelectronic frequency-modulated continuous-wave terahertz spectroscopy with 4 THz bandwidth. In: Nature Communications, Vol.12, No.1, Art.1071 (Article). DOI:10.1038/s41467-021-21260-x.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85100938855&doi=10.1038%2fs41467-021-21260-x&partnerID=40&md5=0d9761ca9ce7572de1f534bcf2dff77>
- Carpintero G., Gonzalez L., Guzman R., Ali M., Felipe D.D., Qian T., Keil N., Grootjans R., Roeloffzen C. (2021): Photonic Integrated Circuits for Terahertz Communication: The Hybrid Integrated Microwave Photonic approach. In: 2021 Optical Fiber Communications Conference and Exhibition, OFC 2021 - Proceedings, Art.9489627 (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112053592&partnerID=40&md5=5244e7abb40f94f0998935a10baa1545>
- Carpintero G., González L., Guzmán R., Ali M., de Felipe D., Qian T., Keil N., Grootjans R., Roeloffzen C. (2021): Photonic integrated circuits for terahertz communication: The hybrid integrated microwave photonic approach. In: Optics InfoBase Conference Papers (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120417938&partnerID=40&md5=4ba89f4aed227d3afe514cd18727b814>
- Ordouei H., Krzyzek M., Perlot N., Freund R. (2021): Power and spectrum efficiencies of an optical satellite uplink with spatially diverse beams and incoherent combining. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11852, Art.118524H (Conference Paper). DOI:10.1117/12.2599660.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116071149&doi=10.1117%2f12.2599660&partnerID=40&md5=e1401db30976e78bd65df434b3cb7bb9>
- Conradi H., Hakmi A., Kleinert M., Liebermeister L., De Felipe D., Weigel M., Kresse M., Zawadzki C., Globisch B., Keil N., Freund R., Schell M. (2021): Second Harmonic Generation in Polymer Photonic Integrated Circuits. In: Journal of Lightwave Technology, Vol.39, No.7, Art.9301414, pp.2123-2129 (Article). DOI:10.1109/JLT.2020.3046371.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098768517&doi=10.1109%2fJLT.2020.3046371&partnerID=40&md5=d40366dfbc1cda5a8275aecf52556869>
- Hoffmann V., Hoffmann L., Schade W., Turek T., Gimpel T. (2021): Simple femtosecond laser-based production of enlarged nickel surfaces alloyed with molybdenum, iron and cobalt using aqueous solutions and metal foils. In: Applied Surface Science, Vol.541, Art.148481 (Article). DOI:10.1016/j.apsusc.2020.148481.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85096834983&doi=10.1016%2fj.apsusc.2020.148481&partnerID=40&md5=5d6b6b52b380e2f2302636daf9bb5a68>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Le Kernec A., Canuet L., Maho A., Sotom M., Matter D., Francou L., Edmunds J., Welch M., Kehayas E., Perlot N., Krzyzek M., Paraskevopoulos A., Leuthold J., Horst Y., Bourderionnet J., Brignon A., Lallier E., Billault V., Leviandier L., Conan J.-M., Védrenne N., Lim C.B., Montmerle-Bonnefois A., Petit C., Stampoulidis L., Fehrenz M., Lehnigk-Emden T. (2021): The H2020 VERTIGO project towards tbit/s optical feeder links. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11852, Art.1185217 (Conference Paper). DOI:10.1117/12.2599229.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116001479&doi=10.1117%2f12.2599229&partnerID=40&md5=4d5124c0540d27fa474f117709df3e53>
- Conradi H., Qian T., Kresse M., Reck J., De Felipe D., Kleinert M., Weigel M., Zawadzki C., Keil N., Schell M. (2021): Tunable DBR Laser with Integrated Optical Isolator. In: 2021 Optical Fiber Communications Conference and Exhibition, OFC 2021 - Proceedings, Art.9489708 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112032807&partnerID=40&md5=2597c1baa447f82b49b07ed6d4bf9d06>
- Conradi H., Qian T., Kresse M., Reck J., de Felipe D., Kleinert M., Weigel M., Zawadzki C., Keil N., Schell M. (2021): Tunable DBR laser with integrated optical isolator. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120436193&partnerID=40&md5=60434cda9674a6ccb4c8642986f35b33>
- Manavi S., Renna T., Horvath A., Freund S., Zam A., Rauter G., Schade W., Cattin P.C. (2021): Using supervised deep-learning to model edge-FBG shape sensors: A feasibility study. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11772, Art.117720P (Conference Paper). DOI:10.1117/12.2589252.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109213903&doi=10.1117%2f12.2589252&partnerID=40&md5=5121e98fd84a18df388eb7556297593a>
- Happach M.S.R., De Felipe D., Friedhoff N., Kresse M., Irmscher G., Kleinert M., Zawadzki C., Brinker W., Moehrle M., Keil N., Hofmann W.H.E., Schell M. (2021): Wavelength locking and determination in tunable lasers by gain Voltage measurement. In: Journal of Lightwave Technology (Article). DOI:10.1109/JLT.2021.3131410.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120543851&doi=10.1109%2fJLT.2021.3131410&partnerID=40&md5=c5c4416acff08753d1e18de466deb9fe>
- Minet Y., Basler M., Zappe H., Buse K., Breunig I. (2021): Advances in pockels-effect-based adiabatic frequency conversion in lithium niobate high-Q optical microresonators. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120402892&partnerID=40&md5=9ab253e74e25e90e68439aa491a08aac>
- Diaz D., Vidal X., Sunna A., Care A. (2021): Bioengineering a light-responsive encapsulin nanoreactor: A potential tool for in vitro photodynamic therapy. In: ACS Applied Materials and Interfaces, Vol.13, No.7, pp.7977-7986 (Article). DOI:10.1021/acsami.0c21141.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85101541359&doi=10.1021%2facami.0c21141&partnerID=40&md5=cdac35ed9ef279fe55cb80802a86446e>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Urban D.F., Ambacher O., Elsässer C. (2021): First-principles calculation of electroacoustic properties of wurtzite (Al,Sc)N. In: Physical Review B, Vol.103, No.11, Art.115204 (Article). DOI:10.1103/PhysRevB.103.115204.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102710332&doi=10.1103%2fPhysRevB.103.115204&partnerID=40&md5=b6733ce6606c5bd96b22cec528b516ad>
- Lebedev V., Engels J., Kustermann J., Weippert J., Cimalla V., Kirste L., Giese C., Quellmalz P., Graff A., Meyer F., Höfer M., Sittinger V. (2021): Growth defects in heteroepitaxial diamond. In: Journal of Applied Physics, Vol.129, No.16, Art.165301 (Article). DOI:10.1063/5.0045644.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104634773&doi=10.1063%2f5.0045644&partnerID=40&md5=8bd756de8d7507b06116cb193a4410ee>
- Weippert J., Ulaş S., Meyer P.P., Strelnikov D.V., Böttcher A. (2021): High-Purity Er<sub>3</sub>N@C<sub>80</sub> Films: Morphology, Spectroscopic Characterization, and Thermal Stability. In: Physica Status Solidi (B) Basic Research, Vol.258, No.5, Art.2000546 (Article). DOI:10.1002/pssb.202000546.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102564441&doi=10.1002%2fpssb.202000546&partnerID=40&md5=d24b603e9f5bf42d5fa285aa83f1e7a8>
- Choudhury, Sneha; Golnak, Ronny; Schulz, Christian; Lieutenant, Klaus; Tranchant, Nicolas; Arnault, Jean-Charles; Pinault-Thaury, Marie-Amandine; Jomard, François; Knittel, Peter; Petit, Tristan (2021): Impact of nitrogen, boron and phosphorus impurities on the electronic structure of diamond probed by x-ray spectroscopies. In: C - Journal of Carbon Research, Vol.7, Nr.1, Art. 28, 9 S. (Zeitschriftenaufsatz; Elektronische Publikation). DOI:10.3390/c7010028 .  
Link: <https://doi.org/10.3390/c7010028>
- Jin P.-Q., Jeske J., Greentree A.D., Cole J.H. (2021): Microwave quantum optics as a direct probe of the Overhauser field in a quantum dot circuit quantum electrodynamics device. In: Physical Review B, Vol.103, No.4, Art.045301 (Article). DOI:10.1103/PhysRevB.103.045301.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85099294077&doi=10.1103%2fPhysRevB.103.045301&partnerID=40&md5=e1a07e62bddd4e542a29a059ee3dbc2>
- Martinelli F., Magliocca C., Cardella R., Charbon E., Iacobucci G., Nessi M., Paolozzi L., Rücker H., Valerio P. (2021): Measurements and analysis of different front-end configurations for monolithic SiGe BiCMOS pixel detectors for HEP applications. In: Journal of Instrumentation, Vol.16, No.12, Art.P12038 (Article). DOI:10.1088/1748-0221/16/12/P12038.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122657502&doi=10.1088%2f1748-0221%2f16%2f12%2fP12038&partnerID=40&md5=d38f07a230d352a548d191709db87102>
- Lischke S., Peczek A., Morgan J.S., Sun K., Steckler D., Yamamoto Y., Korndörfer F., Mai C., Marschmeyer S., Fraschke M., Krüger A., Beling A., Zimmermann L. (2021): Ultra-fast germanium photodiode with 3-dB bandwidth of 265 GHz. In: Nature Photonics, Vol.15, No.12, pp.925-931 (Article). DOI:10.1038/s41566-021-00893-w.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119521145&doi=10.1038%2fs41566-021-00893-w&partnerID=40&md5=47636fa0c32ddf15839c699a2b49920c>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Seiler P.M., Georgieva G., Winzer G., Peczek A., Voigt K., Lischke S., Fatemi A., Zimmermann L. (2021): Toward coherent O-band data center interconnects. In: *Frontiers of Optoelectronics*, Vol.14, No.4, pp.414-425 (Article). DOI:10.1007/s12200-021-1242-0.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118238261&doi=10.1007%2fs12200-021-1242-0&partnerID=40&md5=f44b12ec3b6682e5cf6c0a9307141ba3>
- Aktas O., Yamamoto Y., Kaynak M., Peacock A.C. (2021): Non-isothermal phase-field simulations of laser-written in-plane SiGe heterostructures for photonic applications. In: *Communications Physics*, Vol.4, No.1, Art.132 (Article). DOI:10.1038/s42005-021-00632-1.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107807018&doi=10.1038%2fs42005-021-00632-1&partnerID=40&md5=d38b1a7b4b4456718840f6b40fdda554>
- Villringer C., Steglich P., Pulwer S., Schrader S., Laufer J. (2021): Electro-optical properties of doped polymers with high transparency in the visible wavelength range. In: *Optical Materials Express*, Vol.11, No.11, pp.3801-3811 (Article). DOI:10.1364/OME.435953.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119100327&doi=10.1364%2fOME.435953&partnerID=40&md5=70d1769fec01b9fcbba1911654d79a68>
- Manganelli C.L., Virgilio M., Montanari M., Zaitsev I., Andriolli N., Faralli S., Tirelli S., Dagnano F., Klesse W.M., Spirito D. (2021): Tensile Strained Germanium Microstructures: A Comprehensive Analysis of Thermo-Opto-Mechanical Properties. In: *Physica Status Solidi (A) Applications and Materials Science*, Vol.218, No.21, Art.2100293 (Article). DOI:10.1002/pssa.202100293.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85115854638&doi=10.1002%2fpssa.202100293&partnerID=40&md5=d8eb5c5d34dfb1307a7eb5b8f378298b>
- Eisermann R., Krenek S., Winzer G., Rudtsch S. (2021): Photonische Berührungsthermometrie mit Silizium-Ringresonatoren und durchstimmbarer Laser basierter Spektroskopie [Photonic contact thermometry using silicon ring resonators and tuneable laser-based spectroscopy]. In: *Technisches Messen*, Vol.88, No.10, pp.640-654 (Article). DOI:10.1515/teme-2021-0054.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85115634767&doi=10.1515%2f teme-2021-0054&partnerID=40&md5=eef58a59efae88075deb9484764fb44d>
- Pelella A., Grillo A., Faella E., Luongo G., Askari M.B., Di Bartolomeo A. (2021): Graphene-Silicon Device for Visible and Infrared Photodetection. In: *ACS Applied Materials and Interfaces*, Vol.13, No.40, pp.47895-47903 (Article). DOI:10.1021/acsami.1c12050.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117263009&doi=10.1021%2facami.1c12050&partnerID=40&md5=bddf9e3e81cdc48e15201f3125ebd1b0>
- Villasmunta F., Steglich P., Schrader S., Schenk H., Mai A. (2021): Numerical Simulation of Optical Through-Silicon Waveguide for 3D Photonic Interconnections. In: *Proceedings of the International Conference on Numerical Simulation of Optoelectronic Devices, NUSOD*, Vol.2021-September, pp.115-116 (Conference Paper). DOI:10.1109/NUSOD52207.2021.9541464.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116314531&doi=10.1109%2fNUSOD52207.2021.9541464&partnerID=40&md5=7b1bd80d77ee7698da196f66a41c8c5e>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Spahic L., Ilic S., Andelkovic M., Palma A.J., Ristic G.S. (2021): Application of Transimpedance Amplifiers in PIN Photodiode Dosimetry. In: Proceedings of the International Conference on Microelectronics, ICM, Vol.2021-September, pp.317-320 (Conference Paper). DOI:10.1109/MIEL52794.2021.9569069.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118466859&doi=10.1109%2fMIEL52794.2021.9569069&partnerID=40&md5=1747aa534d6271f1db3c458fa3254cc9>
- Ilic S.D., Andjelkovic M.S., Carvajal M.A., Lallena A.M., Krstic M., Stankovic S., Ristic G.S. (2021): Power silicon carbide schottky diodes as current mode  $\gamma$ -radiation detectors. In: Proceedings of the International Conference on Microelectronics, ICM, Vol.2021-September, pp.337-340 (Conference Paper). DOI:10.1109/MIEL52794.2021.9569076.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118457713&doi=10.1109%2fMIEL52794.2021.9569076&partnerID=40&md5=7e11d693ef3ab08383bbc3909a7fc5f8>
- Mitri F., De Iacovo A., De Santis S., Giansante C., Spirito D., Sotgiu G., Colace L. (2021): A compact optical sensor for explosive detection based on NIR luminescent quantum dots. In: Applied Physics Letters, Vol.119, No.4, Art.041106 (Article). DOI:10.1063/5.0060400.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111704759&doi=10.1063%2f5.0060400&partnerID=40&md5=4288b244813623f3b175129c294a07c4>
- Talamas Simola E., Kiyek V., Ballabio A., Schlykow V., Frigerio J., Zucchetti C., De Iacovo A., Colace L., Yamamoto Y., Capellini G., Grützmacher D., Buca D., Isella G. (2021): CMOS-Compatible Bias-Tunable Dual-Band Detector Based on GeSn/Ge/Si Coupled Photodiodes. In: ACS Photonics, Vol.8, No.7, pp.2166-2173 (Article). DOI:10.1021/acsp Photonics.1c00617.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111331623&doi=10.1021%2facsp Photonics.1c00617&partnerID=40&md5=41616603ee6ed31ea3f3eaa28cf51be2>
- Georgieva G., Voigt K., Seiler P.M., Mai C., Petermann K., Zimmermann L. (2021): A physical origin of cross-polarization and higher-order modes in two-dimensional (2D) grating couplers and the related device performance limitations. In: JPhys Photonics, Vol.3, No.3, Art.e035002 (Article). DOI:10.1088/2515-7647/abf942.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109094859&doi=10.1088%2f2515-7647%2fabf942&partnerID=40&md5=f0ba7065ad3fb490cdda0c152ccafefb>
- Dziallas G., Fatemi A., Peczek A., Tarar M., Kissinger D., Zimmermann L., Malignaggi A., Kahmen G. (2021): A-115 dBc/Hz Integrated Optoelectronic Oscillator in a BiCMOS Silicon Photonic Technology. In: IEEE MTT-S International Microwave Symposium Digest, Vol.2021-June, pp.23-26 (Conference Paper). DOI:10.1109/IMS19712.2021.9574906.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118584070&doi=10.1109%2fIMS19712.2021.9574906&partnerID=40&md5=2f0d1fef7b46f86caca2ad0b044f54ac>
- Stark D., Mirza M., Persichetti L., Montanari M., Markmann S., Beck M., Grange T., Birner S., Virgilio M., Ciano C., Ortolani M., Corley C., Capellini G., Di Gaspare L., De Seta M., Paul D.J., Faist J., Scali G. (2021): Terahertz intersubband electroluminescence from n-type germanium quantum wells. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9541838.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

85117593261&doi=10.1109%2fCLEO%2fEurope-  
EQEC52157.2021.9541838&partnerID=40&md5=015e4768086d1d3318215fdaa69b88c8

- Georgieva G., Seiler P.M., Mai C., Petermann K., Zimmermann L. (2021): 2D Grating Coupler Induced Polarization Crosstalk in Coherent Transceivers for Next Generation Data Center Interconnects. In: 2021 Optical Fiber Communications Conference and Exhibition, OFC 2021 - Proceedings, Art.9489981 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112033692&partnerID=40&md5=3735aa66c4a3b6629ecaec384b319d3>
- Spirito D., Martín-García B., Mišeikis V., Coletti C., Bonaccorso F., Krahn R. (2021): Modeling Photodetection at the Graphene/Ag<sub>2</sub>S Interface. In: *Physica Status Solidi - Rapid Research Letters*, Vol.15, No.6, Art.2100120 (Article). DOI:10.1002/pssr.202100120.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104962294&doi=10.1002%2fpssr.202100120&partnerID=40&md5=62f560d47bc8acc31acd07904beb1f28>
- Schlipf J., Tetzner H., Spirito D., Manganelli C.L., Capellini G., Huang M.R.S., Koch C.T., Clausen C.J., Elsayed A., Oehme M., Chiussi S., Schulze J., Fischer I.A. (2021): Raman shifts in MBE-grown SixGe<sub>1-x</sub>Sn<sub>x</sub> alloys with large Si content. In: *Journal of Raman Spectroscopy*, Vol.52, No.6, pp.1167-1175 (Article). DOI:10.1002/jrs.6098.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102944578&doi=10.1002%2fjrs.6098&partnerID=40&md5=cf5bb6d7563d499725dad6ce46b557d3>
- Giannakopoulos S., Sourikopoulos I., Stampoulidis L., Ostrovskyy P., Těplý F., Tittelbach-Helmrich K., Panic G., Fischer G., Grabowski A., Zirath H., Ayzac P., Venet N., Maho A., Sotom M., Jones S., Wood G., Oxtoby I. (2021): A 112 Gb/s Radiation-Hardened Mid-Board Optical Transceiver in 130-nm SiGe BiCMOS for Intra-Satellite Links. In: *Frontiers in Physics*, Vol.9, Art.672941 (Article). DOI:10.3389/fphy.2021.672941.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107034170&doi=10.3389%2ffphy.2021.672941&partnerID=40&md5=c86abbea768b745383002031eedc5a44>
- Koch U., Uhl C., Hettrich H., Fedoryshyn Y., Moor D., Baumann M., Hoessbacher C., Heni W., Baeuerle B., Bitachon B.I., Josten A., Ayata M., Xu H., Elder D.L., Dalton L.R., Mentovich E., Bakopoulos P., Lischke S., Krüger A., Zimmermann L., Tsiokos D., Pleros N., Möller M., Leuthold J. (2021): Plasmonics - High-speed photonics for co-integration with electronics. In: *Japanese Journal of Applied Physics*, Vol.60, Art.SB0806 (Review). DOI:10.35848/1347-4065/abef13.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105723925&doi=10.35848%2f1347-4065%2fabef13&partnerID=40&md5=df012492aefc4d14bfb86df3f9225411>
- Steglich P., Mai C., Villringer C., Dietzel B., Bondarenko S., Ksianzou V., Villasmunta F., Zesch C., Pulwer S., Burger M., Bauer J., Heinrich F., Schrader S., Vitale F., De Matteis F., Proposito P., Casalboni M., Mai A. (2021): Silicon-organic hybrid photonics: An overview of recent advances, electro-optical effects and CMOS integration concepts. In: *JPhys Photonics*, Vol.3, No.2, Art.022009 (Review). DOI:10.1088/2515-7647/abd7cf.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104875201&doi=10.1088%2f2515-7647%2fabd7cf&partnerID=40&md5=27a0abe42ae1e9ac37199f858c3757bb>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Kim M., Kim M.-H., Jo Y., Kim H.-K., Lischke S., Mai C., Zimmermann L., Choi W.-Y. (2021): Silicon electronic–photonic integrated 25 Gb/s ring modulator transmitter with a built-in temperature controller. In: *Photonics Research*, Vol.9, No.4, pp.507-513 (Article). DOI:10.1364/PRJ.413407.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103667918&doi=10.1364%2fPRJ.413407&partnerID=40&md5=f32477e8f49665ea6e282621df2c4c4d>
- Kim H.-K., Kim M., Kim M.-H., Jo Y., Lischke S., Mai C., Zimmermann L., Choi W.-Y. (2021): Si photonic-electronic monolithically integrated optical receiver with a built-in temperature-controlled wavelength filter. In: *Optics Express*, Vol.29, No.6, pp.9565-9573 (Article). DOI:10.1364/OE.418222.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102464273&doi=10.1364%2fOE.418222&partnerID=40&md5=9e8945c84f9afb9d37437ee230131c48>
- Stark D., Mirza M., Persichetti L., Montanari M., Markmann S., Beck M., Grange T., Birner S., Virgilio M., Ciano C., Ortolani M., Corley C., Capellini G., Di Gaspare L., De Seta M., Paul D.J., Faist J., Scalari G. (2021): THz intersubband electroluminescence from n-type Ge/SiGe quantum cascade structures. In: *Applied Physics Letters*, Vol.118, No.10, Art.101101 (Article). DOI:10.1063/5.0041327.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102407142&doi=10.1063%2f5.0041327&partnerID=40&md5=ff93659810f872083529acd33aa57c9a>
- Chavarin C.A., Hardt E., Gruessing S., Skibitzki O., Costina I., Spirito D., Seifert W., Klesse W., Manganelli C.L., You C., Flesch J., Piehler J., Missori M., Baldassarre L., Witzigmann B., Capellini G. (2021): n-type Ge/Si antennas for THz sensing. In: *Optics Express*, Vol.29, No.5, pp.7680-7689 (Article). DOI:10.1364/OE.418382.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85101792402&doi=10.1364%2fOE.418382&partnerID=40&md5=4c423ca69c6a48a9df2eff8987f27bcf>
- Dziallas G., Fatemi A., Malignaggi A., Kahmen G. (2021): A Monolithic-Integrated Broadband Low-Noise Optical Receiver with Automatic Gain Control in 0.25 $\mu$ m SiGe BiCMOS. In: 2021 IEEE 21st Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems, SiRF 2021, Art.9383400, pp.1-3 (Conference Paper). DOI:10.1109/SiRF51851.2021.9383400.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103830789&doi=10.1109%2fSiRF51851.2021.9383400&partnerID=40&md5=8dea751418bdd8ea7ed9d348b7b37cb9>
- Bauer J., Fursenko O., Heinrich F., Gutke M., Kornejew E., Broedel O., Dietzel B., Kaltenbach A., Burkhardt M., Edling M., Steglich P., Herzog M., Schrader S. (2021): Determination of optical constants and scattering properties of transparent polymers for use in optoelectronics. In: *Optical Materials Express*, Vol.12, No.1, pp.204-224 (Article). DOI:10.1364/OME.434715.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122024728&doi=10.1364%2fOME.434715&partnerID=40&md5=8f34bb2d7983a293a77fe70561f2a0ef>
- Lischke S., Peczek A., Morgan J.S., Sun K., Steckler D., Yamamoto Y., Korndörfer F., Mai C., Marschmeyer S., Fraschke M., Krüger A., Beling A., Zimmermann L. (2021): Publisher Correction: Ultra-fast germanium photodiode with 3-dB bandwidth of 265 GHz (*Nature Photonics*, (2021), 15, 12, (925-931), 10.1038/s41566-021-00893-w). In: *Nature Photonics* (Erratum). DOI:10.1038/s41566-021-00948-y.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

85121682870&doi=10.1038%2fs41566-021-00948-  
y&partnerID=40&md5=3e8ebdaa4180668159653e23186d1dfb

- Seiler P.M., Zimmermann L. (2021): Power Efficiency Improvements in Coherent O-Band Data Center Interconnects. In: Optics InfoBase Conference Papers, Art.Tu4C.3 (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120548081&partnerID=40&md5=2e84c05a710eafdf5e9e3c8f1316917d>
- Georgieva G., Seiler P.M., Mai C., Petermann K., Zimmermann L. (2021): 2D grating coupler induced polarization crosstalk in coherent transceivers for next generation data center interconnects. In: Optics InfoBase Conference Papers (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120429231&partnerID=40&md5=a7ca6336ab11d33a609116fa8bc9a2f5>
- Stark D., Mirza M., Persichetti L., Montanari M., Markmann S., Beck M., Grange T., Birner S., Virgilio M., Ciano C., Ortolani M., Corley C., Capellini G., Di Gaspare L., de Seta M., Paul D.J., Faist J., Scalari G. (2021): Terahertz intersubband electroluminescence from n-type Germanium quantum wells. In: Optics InfoBase Conference Papers (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120426135&partnerID=40&md5=1cab5c88fd84e04fe72374b9142189ab>
- Steglich P. (2021): Defining Sensitivity of Integrated Optical Biosensors: A Multidisciplinary Lesson Approach. In: Optics InfoBase Conference Papers, Art.Th3A.7 (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119691521&partnerID=40&md5=18f635bba5a55cee94572c8e1e2948aa>
- Steglich P., Rabus D.G., Sada C., Paul M., Weller M.G., Mai C., Mai A. (2021): Silicon Photonic Micro-Ring Resonators for Chemical and Biological Sensing: A Tutorial. In: IEEE Sensors Journal (Article). DOI:10.1109/JSEN.2021.3119547.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116191762&doi=10.1109%2fJSEN.2021.3119547&partnerID=40&md5=d5c66e10e3d16b5a18d8271fc5c58d6b>
- Sourikopoulos I., Stampoulidis L., Giannakopoulos S., Zirath H., Ostrovskyy P., Fischer G., Faugeron M., Maho A., Cyrille L., Bouisset G., Venet N., Sotom M., Irion M., Schaub F., Barbero J., Lopez D., Walker R.G., Zhou Y., Oxtoby I., Duffy S. (2021): The H2020-SPACE-SIPHODIAS project: Space-grade optoelectronic interfaces for photonic digital and analogue very-high-throughput satellite payloads. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11852, Art.1185254 (Conference Paper). DOI:10.1117/12.2599927.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116005554&doi=10.1117%2f12.2599927&partnerID=40&md5=929eb3ea48c5155b80852440721a5b9f>
- Osman A., Sourikopoulos I., Winzer G., Zimmermann L., Maho A., Faugeron M., Sotom M., Caccavale F., Serrano Rodrigo A., Chiesa M., Rotta D., Preve G.B., Edmunds J., Welch M., Kehayas S., Dorward W., Dupont F., Costa R., Mesquita D., Stampoulidis L. (2021): The H2020-SPACE-ORIONAS project: "Lasercom-on-chip" for high-speed satellite constellation interconnectivity. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11852, Art.118521L (Conference Paper). DOI:10.1117/12.2599248.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116002010&doi=10.1117%2f12.2599248&partnerID=40&md5=c3b9b5420385a1ca3914abda4581ebe2>



Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Schmalz K., Rothbart N., Gluck A., Eissa M.H., Mausolf T., Turkmen E., Yilmaz S.B., Hubers H.-W. (2021): Dual-Band Transmitter and Receiver with Bowtie-Antenna in 0.13  $\mu\text{m}$  SiGe BiCMOS for Gas Spectroscopy at 222 - 270 GHz. In: IEEE Access, Vol.9, pp.124805-124816 (Article). DOI:10.1109/ACCESS.2021.3110210.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85114751621&doi=10.1109%2fACCESS.2021.3110210&partnerID=40&md5=d0053f71187063b02559f5587ad26b05>
- Jo Y., Mai C., Lischke S., Lars Z., Choi W. (2021): Modulation Linearity Characterization of Si Ring Modulators. In: Journal of Lightwave Technology (Article). DOI:10.1109/JLT.2021.3093463.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112158528&doi=10.1109%2fJLT.2021.3093463&partnerID=40&md5=807cd9b92932f2dff18e06e37bc1b37>
- Steglich P., Paul M., Mai C., Böhme A., Bondarenko S., Weller M.G., Mai A. (2021): A monolithically integrated microfluidic channel in a silicon-based photonic-integrated-circuit technology for biochemical sensing. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11772, Art.1177206 (Conference Paper). DOI:10.1117/12.2588791.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109219240&doi=10.1117%2f12.2588791&partnerID=40&md5=b1b3c7fc2e49400d2fd0f3951616997e>
- Steglich P., Mai A. (2021): Analysis of BTO-on-Si-waveguides for energy-efficient electro-optical modulators. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11775, Art.117750L (Conference Paper). DOI:10.1117/12.2592501.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109217087&doi=10.1117%2f12.2592501&partnerID=40&md5=45a8d23439e711197912b0db7a7f87a1>
- Aktas O., Yamamoto Y., Kaynak M., Peacock A.C. (2021): Direct laser writing of graded-index SiGe waveguides via phase segregation. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11673, Art.1167317 (Conference Paper). DOI:10.1117/12.2575437.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107189106&doi=10.1117%2f12.2575437&partnerID=40&md5=0e7b738f14129dbed2c06652fbdcf77e>
- Bondarenko S., Hülsemann M., Mai A., Steglich P. (2021): Fiber-to-chip light coupling using a graded-index lensed fiber collimator. In: Optical Engineering, Vol.60, No.1, Art.014105 (Article). DOI:10.1117/1.OE.60.1.014105.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85100332796&doi=10.1117%2f1.OE.60.1.014105&partnerID=40&md5=98f6b5966da0164b538c61a69066c761>
- Troppenz U., Kreissl J. (2021): Designs break bandwidth record. In: Nature Photonics, Vol.15, No.1, pp.4-5 (Note). DOI:10.1038/s41566-020-00739-x.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85097954051&doi=10.1038%2fs41566-020-00739-x&partnerID=40&md5=89bac5048136000f3c74a1982e608fd0>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Kirrbach R., Schneider T., Faulwaber M., Zielant K. (2021): Multipath lens for eye-safe optical wireless communications. In: Optics Express, Vol.29, No.19, pp.30208-30222 (Article). DOI:10.1364/OE.435890.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85114272133&doi=10.1364%2fOE.435890&partnerID=40&md5=b8e643c4f6fb3467ea85e8af02ee2f78>
- Scholles, Michael , Fraunhofer IPMS (2021): Optical microsystems for advanced imaging in biomedicine. Abstract presented at Arizona Photonics Days 2021 - Expanding Optics and Photonics Technologies in Industrial and Commercial Applications, virtual conference, March 3-5, 2021. In: (Abstract; Elektronische Publikation). DOI:  
Link: <http://publica.fraunhofer.de/documents/N-633413.html>
- Sabouri S., Mendoza L.A., Catuneanu M., Namdari M., Jamshidi K. (2021): Thermo Optical Phase Shifter with Low Thermal Crosstalk for SOI Strip Waveguide. In: IEEE Photonics Journal, Vol.13, No.2, Art.9345963 (Article). DOI:10.1109/JPHOT.2021.3056902.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85100827470&doi=10.1109%2fJPHOT.2021.3056902&partnerID=40&md5=18ea8f8ede5003e5da2af308326f9ad1>
- Michel M., Blaeser S., Zakizade E., Weyers S., Weiler D. (2021): 6 µm microbolometers for uncooled thermal imaging. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11866, Art.1186605 (Conference Paper). DOI:10.1117/12.2597969.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120452257&doi=10.1117%2f12.2597969&partnerID=40&md5=cfb6dd1ccd0642e9bb754baf34bbe40>
- Haase J.F., Grollius S., Grosse S., Buchner A., Ligges M. (2021): A 32x24 pixel SPAD detector system for LiDAR and quantum imaging. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11693, Art.116930M (Conference Paper). DOI:10.1117/12.2578775.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105964103&doi=10.1117%2f12.2578775&partnerID=40&md5=11533187ac5c60719f704296dd3369cf>
- Grosse, Simon; Steuer, Andrej; Stein, Peter vom; Zeidler, Christopher; Haase, Jan F. (2021): A 64 x 48 BSI SPAD sensor based on 8" " wafer 3D stacking technology. In: SMSI 2021, Sensor and Measurement Science International, S.167-168 (Konferenzbeitrag; Elektronische Publikation). DOI:10.5162/SMSI2021/B10.1.  
Link: <http://publica.fraunhofer.de/documents/N-635394.html>
- Kappert, Holger; Braun, Sebastian; Kordas, Norbert; Kosfeld, Andre; Utz, Alexander; Weber, Constanze; Ramer, Olaf; Spanier, ... (2021): A high temperature SOI-CMOS chipset focusing sensor electronics for operating temperatures up to 300 °C. In: IMAPS Additional Conferences (Device Packaging, HiTEC, HiTEN, & CICMT). Online journal, Vol.2021, HiTEC, S.18-24 (Zeitschriftenaufsatz). DOI:10.4071/2380-4491.2021.HiTEC.000018 .  
Link: <http://publica.fraunhofer.de/documents/N-637819.html>
- Brunetti A.M., Choubey B. (2021): A low dark current 160 db logarithmic pixel with low voltage photodiode biasing. In: Electronics (Switzerland), Vol.10, No.9, Art.1096 (Article). DOI:10.3390/electronics10091096.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105423255&doi=10.3390%2felectronics10091096&partnerID=40&md5=e93a8e3df62a00b1f76b6300ea2c78d7>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Buchner A., Hadrath S., Burkard R., Kolb F.M., Ruskowski J., Ligges M., Grabmaier A. (2021): Analytical evaluation of signal-to-noise ratios for avalanche-and single-photon avalanche diodes. In: Sensors, Vol.21, No.8, Art.2887 (Article). DOI:10.3390/s21082887.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104392039&doi=10.3390%2fs21082887&partnerID=40&md5=3d3aec08699f8cd11bf8f95bb2e55d3d>
- Grollius, Sara; Ligges, Manuel; Ruskowski, Jennifer (2021): Concept of an automotive LiDAR target simulator for direct time-of-flight LiDAR. In: IEEE transactions on intelligent vehicles, Online First, 11 S. (Zeitschriftenaufsatz; Elektronische Publikation).  
DOI:10.1109/TIV.2021.3128808.  
Link: <http://publica.fraunhofer.de/documents/N-643455.html>
- Wuerich, Carolin; Wichum, Felix; Wiede, Christian; Grabmaier, Anton (2021): Contactless optical respiration rate measurement for a fast triage of SARS-CoV-2 patients in hospitals. In: International Conference on Image Processing and Vision Engineering, IMPROVE 2021. Proceedings, S.29-35 (Konferenzbeitrag). DOI:10.5220/0010408400290035.  
Link: <http://publica.fraunhofer.de/documents/N-635155.html>
- Chen G., Wiede C., Kokozinski R. (2021): Data Processing Approaches on SPAD-Based d-TOF LiDAR Systems: A Review. In: IEEE Sensors Journal, Vol.21, No.5, Art.9261382, pp.5656-5667 (Article). DOI:10.1109/JSEN.2020.3038487.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098771010&doi=10.1109%2fJSEN.2020.3038487&partnerID=40&md5=0008db46a3762aaacbb632a391ada4a4>
- Selvaggio, Gabriele; Weitzel, Milan; Oleksiievets, Nazar; Oswald, Tabea A.; Nißler, Robert (2021): Exfoliation and optical properties of near-infrared fluorescent silicate nanosheets. Published on ChemRxiv. In: 24 S. (Paper; Elektronische Publikation).  
DOI:10.26434/chemrxiv.13350728.v1 .  
Link: <http://publica.fraunhofer.de/documents/N-635170.html>
- Chen G., Gembaczka P., Wiede C., Kokozinski R. (2021): Feature extraction and neural network-based analysis on time-correlated LiDAR histograms. In: PHOTOPTICS 2021 - Proceedings of the 9th International Conference on Photonics, Optics and Laser Technology, pp.17-22 (Conference Paper). DOI:10.5220/0010185600170022.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102992637&partnerID=40&md5=8c1d33219713a6f41166e7ddf0dccee8>
- Burkard R., Viga R., Ruskowski J., Grabmaier A. (2021): Generalized comparison of the accessible emission limits of flash- And scanning LiDAR-systems. In: SMACD / PRIME 2021 - International Conference on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design and 16th Conference on PhD Research in Microelectronics and Electronics, pp.292-295 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117371643&partnerID=40&md5=d2ba457bac42e4dbfa917a2e63cf607d>
- Zhao, Yixiong; Buchholz, Jan; Ligges, Manuel; Bögel, Gerd vom (2021): High-Q photonic crystal resonator with large hole for microfluidic integration for biosensing. In: 46th International Conference on Infrared, Millimeter and Terahertz Waves, IRMMW-THz 2021, 2 S. (Konferenzbeitrag). DOI:10.1109/IRMMW-THz50926.2021.9567112.  
Link: <http://publica.fraunhofer.de/documents/N-642604.html>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Selvaggio, Gabriele; Nißler, Robert; Nietmann, Peter; Patra, Atanu; Patalag, Lukas J.; Janshoff, Andreas; Wer... (2021): NIR-emitting benzene-fused oligo-BODIPYs for bioimaging. . In: Published on ChemRxiv (Paper; Elektronische Publikation). DOI:10.33774/chemrxiv-2021-nl537. Link: <http://publica.fraunhofer.de/documents/N-640946.html>
- Selvaggio G., Weitzel M., Oleksiivets N., Oswald T.A., Nißler R., Mey I., Karius V., Enderlein J., Tsukanov R., Kruss S. (2021): Photophysical properties and fluorescence lifetime imaging of exfoliated near-infrared fluorescent silicate nanosheets. In: Nanoscale Advances, Vol.3, No.15, pp.4541-4553 (Article). DOI:10.1039/d1na00238d. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111432496&doi=10.1039%2fd1na00238d&partnerID=40&md5=224273b4b14dce3980249b4120e826e5>
- Wuerich C., Rademacher R., Wiede C., Grabmaier A. (2021): PTT-based Contact-less Blood Pressure Measurement using an RGB-Camera. In: Current Directions in Biomedical Engineering, Vol.7, No.2, pp.375-378 (Article). DOI:10.1515/cdbme-2021-2095. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85121920883&doi=10.1515%2fcdbme-2021-2095&partnerID=40&md5=a15ec7c030ea244fc8af7939efb708dd>
- Pitsch C., Walter D., Grosse S., Brockherde W., Bürsing H., Eichhorn M. (2021): Quantum ghost imaging using asynchronous detection. In: Applied Optics, Vol.60, No.22, pp.F66-F70 (Article). DOI:10.1364/AO.423634. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108514966&doi=10.1364%2fAO.423634&partnerID=40&md5=d1e24054cb88ddf0e20581053290ae94>
- Becher, Malte; Ostendorf, Andreas; Wree, Jan-Lucas; Devi, Anjana; Berning, Thomas; Bock, Claudia; Neubieser, Rahel-Manuela (2021): Raman spectroscopy as an effective tool for characterizing large-area 2D TMDs deposited from the gas phase. In: MikroSystemTechnik Kongress 2021, S.498-501 (Konferenzbeitrag). DOI:. Link: <http://publica.fraunhofer.de/documents/N-645387.html>
- Palavesam, Nagarajan; Choi, Jung Han; Hell, Waltraud (2021): Advanced integration technology for fabricating high-speed electro-optical sub-assembly. In: 23rd European Microelectronics and Packaging Conference & Exhibition, EMPC 2021, S.258-262 (Konferenzbeitrag). DOI:10.23919/EMPC53418.2021.9584968. Link: <http://publica.fraunhofer.de/documents/N-645335.html>
- Hassan T., Seus D., Wollenberg J., Weitz K., Kunz M., Lautenbacher S., Garbas J.-U., Schmid U. (2021): Automatic Detection of Pain from Facial Expressions: A Survey. In: IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol.43, No.6, Art.8928510, pp.1815-1831 (Review). DOI:10.1109/TPAMI.2019.2958341. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105860619&doi=10.1109%2fTPAMI.2019.2958341&partnerID=40&md5=b824062c963ab5afe3620bc53ce43324>
- Richter T., Fobel S., Descampe A., Rouvroy G. (2021): Bayer CFA Pattern Compression with JPEG XS. In: IEEE Transactions on Image Processing, Vol.30, Art.9488288, pp.6557-6569 (Article). DOI:10.1109/TIP.2021.3095421. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111172654&doi=10.1109%2fTIP.2021.3095421&partnerID=40&md5=a61f6fef401ffe11a6c828f56e3810ff>

Forschungsfabrik Mikroelektronik Deutschland – Optoelektronische Systeme  
**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Roshdi M., Bhadauria S., Hassan K., Fischer G. (2021): Deep Reinforcement Learning based Congestion Control for V2X Communication. In: IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, PIMRC, Vol.2021-September (Conference Paper). DOI:10.1109/PIMRC50174.2021.9569259.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118431479&doi=10.1109%2fPIMRC50174.2021.9569259&partnerID=40&md5=76872a4e4801c330d63c308fb2b20dc6>
- Stefani A., Gotz T., Vieregge J.M., Wiedmann M., Tschekalinskij W., Holzer N., Peters V., Dold M., Bauerfeld M.-L., Junger S. (2021): Investigation of the influence of the number of spectral channels in colorimetric analysis. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9542450.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117618496&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9542450&partnerID=40&md5=1f1cd64cbf929648670d0219ea5977b3>
- Gul, Muhammad Shahzeb Khan; Mukati, M. Umair; Baetz, Michel; Forchhammer, Soren; Keinert, Joachim (2021): Light-Field View Synthesis Using a Convolutional Block Attention Module. In: IEEE International Conference on Image Processing, ICIP 2021, S.3398-3402 (Konferenzbeitrag; Elektronische Publikation). DOI:10.1109/ICIP42928.2021.9506586.  
Link: <http://publica.fraunhofer.de/documents/N-640194.html>
- Popp A., Geilen A., Walter D., Chemnitz M., Junaid S., Poulton C.G., Marquardt C., Schmidt M.A., Stiller B. (2021): Localized temperature and pressure measurements inside CS<sub>2</sub>-filled fiber using stimulated Brillouin scattering. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9542349.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117586244&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9542349&partnerID=40&md5=365cb7acfb3574cd810e9abc73a0b525>
- Popp A., Geilen A., Walter D., Chemnitz M., Junaid S., Poulton C.G., Marquardt C., Schmidt M.A., Stiller B. (2021): Localized temperature and pressure measurements inside CS<sub>2</sub>-filled fiber using stimulated Brillouin scattering. In: Optics InfoBase Conference Papers (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120399776&partnerID=40&md5=17231b8c1e48a402a0e90ad223ecd2c3>
- Sharma G., Thoma O.-M., Blessing K., Gal R., Waldner M., Singh K. (2021): Smartphone-based multimodal tethered capsule endoscopic platform for white-light, narrow-band, and fluorescence/autofluorescence imaging. In: Journal of Biophotonics, Vol.14, No.2, Art.e202000324 (Article). DOI:10.1002/jbio.202000324.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85096744708&doi=10.1002%2fjbio.202000324&partnerID=40&md5=9167fc236475fe77ea003665137832df>
- Geilen A., Popp A., Walter D., Chemnitz M., Junaid S., Poulton C.G., Marquardt C., Schmidt M.A., Stiller B. (2021): Strong optoacoustic interaction in hot CS<sub>2</sub>-filled liquid-core optical fiber. In: 2021 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2021 (Conference Paper). DOI:10.1109/CLEO/Europe-EQEC52157.2021.9541969.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117580161&doi=10.1109%2fCLEO%2fEurope-EQEC52157.2021.9541969&partnerID=40&md5=af2e0d6caa4d66b556a54fe6e355bb10>

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**Publikationen aus der Technologieplattform »Optoelektronische Systeme« der Forschungsfabrik  
Mikroelektronik Deutschland (2021)**

- Goebel T.A., Nold J., Hupel C., Kuhn S., Haarlammer N., Schreiber T., Matzdorf C., Imogore T.O., Kramer R.G., Richter D., Tunnermann A., Nolte S. (2021): Ultrashort pulse written fiber Bragg gratings as narrowband filters in multicore fibers. In: Applied Optics, Vol.60, No.19, pp.D43-D51 (Article). DOI:10.1364/AO.421089.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107286102&doi=10.1364%2fAO.421089&partnerID=40&md5=9fe3576c7e53369cb1c01930f117ffa3>
- Lehninger D., Ellinger M., Ali T., Li S., Mertens K., Lederer M., Olivio R., Kämpfe T., Hanisch N., Biedermann K., Rudolph M., Brackmann V., Sanctis S., Jank M.P.M., Seidel K. (2021): A Fully Integrated Ferroelectric Thin-Film-Transistor – Influence of Device Scaling on Threshold Voltage Compensation in Displays. In: Advanced Electronic Materials, Vol.7, No.6, Art.2100082 (Article). DOI:10.1002/aelm.202100082.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105397295&doi=10.1002%2faelm.202100082&partnerID=40&md5=7cfb7bf36b4f78283499aee7f8665bf8>
- Gu-Stoppel S., Senger F., Wen L., Yasar E., Wille G., Albers J. (2021): A design and manufacturing platform for AlScN based highly linear quasi-static MEMS mirrors with large optical apertures. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11697, Art.116970F (Conference Paper). DOI:10.1117/12.2583399.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107425144&doi=10.1117%2f12.2583399&partnerID=40&md5=b85934e658a8ae9283597afa908c1c8c>
- Hoppe M., Schmidtman S., Abmann C., Honsberg M., Tatenguem H., Milde T., Schanze T., Sacher J.R., Gu-Stoppel S., Senger F. (2021): Compact ECDL design for the rapid detection of trace gases in the MIR region. In: Optics InfoBase Conference Papers, Art.ETH2A.3 (Conference Paper). DOI:  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119593864&partnerID=40&md5=b450ccaf1f1179df383624da326e73f0>
- Cwalina S., Kottke C., Jungnickel V., Freund R., Runge P., Rustige P., Knieling T., Gu-Stoppel S., Albers J., Laske N., Senger F., Wen L., Giovanneschi F., Altuntac E., Ramesh A.N., Gonzalez-Huici M.A., Kuter A., Reddy S. (2021): Fiber-based frequency modulated LiDAR with MEMS scanning capability for long-range sensing in automotive applications. In: 2021 IEEE International Workshop on Metrology for Automotive, MetroAutomotive 2021 - Proceedings, pp.48-53 (Conference Paper). DOI:10.1109/MetroAutomotive50197.2021.9502868.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85114964855&doi=10.1109%2fMetroAutomotive50197.2021.9502868&partnerID=40&md5=d6ae872a223b539d66a44a7ef9e3c050>
- Hoppe M., Schmidtman S., Abmann C., Honsberg M., Milde T., Schanze T., Sacher J.R., Gu-Stoppel S., Senger F. (2021): High speed external cavity diode laser concept based on a resonantly driven MEMS scanner for the mid-infrared region. In: Applied Optics, Vol.60, No.15, pp.C92-C97 (Article). DOI:10.1364/AO.420041.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106346874&doi=10.1364%2fAO.420041&partnerID=40&md5=546e30c39d7767dafc3fcf107685a9b9>
- Hoppe M., Schmidtman S., Amann C., Honsberg M., Tatenguem H., Milde T., Schanze T., Sacher J., Gu-Stoppel S., Senger F. (2021): Innovative ECDL design based on a resonant MEMS scanner for ultra-fast tuning in the MIR range. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11697, Art.1169709 (Conference Paper). DOI:10.1117/12.2578913.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

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85107393365&doi=10.1117%2f12.2578913&partnerID=40&md5=63e436f5dbd201043f9cb  
17cd7705b90

- Petrak O., Schwarz F., Pohl L., Reher M., Janicke C., Przytarski J., Senger F., Albers J., Giese T., Ratzmann L., Blicharski P., Marauska S., Von Wantoch T., Hofmann U. (2021): Laser beam scanning based AR-display applying resonant 2D MEMS mirrors. In: Proceedings of SPIE - The International Society for Optical Engineering, Vol.11765, Art.1176503 (Conference Paper). DOI:10.1117/12.2579695.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106872480&doi=10.1117%2f12.2579695&partnerID=40&md5=c5cb284100c7341ee16f85a773d5d288>
- Hoppe M., Schmidtman S., Honsberg M., Tatenguem H., Milde T., Sacher J.R., Gu-Stoppel S., Senger F. (2021): Ultra-fast tunable ECDL design for the MIR region. In: 2021 Conference on Lasers and Electro-Optics, CLEO 2021 - Proceedings (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120488760&partnerID=40&md5=eff596e5ab9023ec8eadd80f34ef4a64>
- Hoppe M., Schmidtman S., Honsberg M., Tatenguem H., Milde T., Sacher J.R., Gu-Stoppel S., Senger F. (2021): Ultra-fast tunable ECDL design for the MIR region. In: Optics InfoBase Conference Papers, Art.ETH2A.3 (Conference Paper). DOI:.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119480888&partnerID=40&md5=6d01c51e4061c71b611133d29f0ecad8>
- Hempel M., Dadgostar S., Jiménez J., Kernke R., Gollhardt A., Tomm J.W. (2021): Catastrophic Optical Damage in Semiconductor Lasers: Physics and New Results on InGaN High-Power Diode Lasers. In: Physica Status Solidi - Rapid Research Letters (Review). DOI:10.1002/pssr.202100527.  
Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120986972&doi=10.1002%2fpssr.202100527&partnerID=40&md5=c3008310edbbe8471bd949fb08898e12>