



## **Publications from the Technology Platform "Optoelectronic Systems" of the Research Fab Microelectronics Germany (2019)**

- Albrodt, P. et al. (2019): Coherent superposition of pulsed high-brightness tapered amplifiers. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85016927536&partnerID=40&md5=4c1a8f91794cf191d9ddf955df7acb19>
- Albrodt, P. et al. (2019): Coherent combining of high brightness tapered amplifiers for efficient non-linear conversion. In: Optics Express (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85039900467&partnerID=40&md5=6439389c21e2ea7d0c6371c1e891d1d7>
- Albrodt, P. et al. (2019): Recent progress in brightness scaling by coherent beam combining of tapered amplifiers for efficient high power frequency doubling. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI: 10.1016/j.nima.2018.08.067. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85052746452&doi=10.1016%2fj.nima.2018.08.067&partnerID=40&md5=9bb95c06174a3948b00316ee6b40f4f1>
- Albrodt, P. et al. (2019): Coherent beam combining of high power quasi continuous wave tapered amplifiers. In: Optics Express (Article). DOI: 10.1016/j.nima.2018.09.088. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85054175120&doi=10.1016%2fj.nima.2018.09.088&partnerID=40&md5=1a5f38d452b47d5acba89f6d06e7ce9d>
- Alimonti, G. et al. (2019): Use of silicon photonics wavelength multiplexing techniques for fast parallel readout in high energy physics. In: Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment (Review). DOI:10.1109/JLT.2018.2873684. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85054535547&doi=10.1109%2fJLT.2018.2873684&partnerID=40&md5=87916cd5e5a9ca9054bc2b00c8892908>

Research Fab Microelectronics Germany – Optoelectronic Systems  
**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab  
Microelectronics Germany (2019)**

- Allerbeck, J. et al. (2019): Ultrafast carrier recombination in highly n-doped Ge-on-Si films. In: Applied Physics Letters (Article). DOI:10.1109/JLT.2018.2871974. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85054649344&doi=10.1109%2fJLT.2018.2871974&partnerID=40&md5=4eb1144defec503d41da1b7664fc56>
- Arar, B. et al. (2019): Determination of the residual amplified spontaneous emission in single-mode semiconductor optical amplifiers. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/JLT.2018.2878362. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055674912&doi=10.1109%2fJLT.2018.2878362&partnerID=40&md5=dce328b0770c8f7aa34e8ee46f7e26b2>
- Arar, B. et al. (2019): GaAs-based phase modulator for laser radiation at 1070 nm. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/JLT.2018.2881107. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85056742152&doi=10.1109%2fJLT.2018.2881107&partnerID=40&md5=31af87c204dc1a1bb83a5c09ea1838c6>
- Baeumler, M. et al. (2019): Optical constants and band gap of wurtzite Al<sub>1-x</sub>Sc<sub>x</sub>N/Al<sub>2</sub>O<sub>3</sub> prepared by magnetron sputter epitaxy for scandium concentrations up to x = 0.41. In: Journal of Applied Physics (Article). DOI: 10.1016/j.infrared.2018.10.019. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85057085846&doi=10.1016%2fj.infrared.2018.10.019&partnerID=40&md5=6537a673dd60ab076968c76ae4d8e893>
- Baier, M. et al. (2019): Polarimetry for photonic integrated circuits. In: Applied Sciences (Switzerland) (Article). DOI: 10.1016/j.microrel.2018.11.008. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85057740798&doi=10.1016%2fj.microrel.2018.11.008&partnerID=40&md5=b6f0de1f696b851353469b3c6cb2a5fc>
- Baier, M. et al. (2019): Fabrication Tolerant Integrated Polarization Rotator Design Using the Jones Calculus. In: Journal of Lightwave Technology (Article). DOI:10.1109/JLT.2018.2885173. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85058116980&doi=10.1109%2fJLT.2018.2885173&partnerID=40&md5=32619876d0d65e1e35b58f0a71248b12>
- Baier, M. et al. (2019): Fully Integrated Stokes Vector Receiver for 400 Gbit/s. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). DOI:10.1088/1361-6641/aaee51. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85059186382&doi=10.1088%2f1361-6641%2faaee51&partnerID=40&md5=4502c838387e0d77aeb54e4dc8359552>

Research Fab Microelectronics Germany – Optoelectronic Systems  
**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab  
Microelectronics Germany (2019)**

- Barh, A. et al. (2019): Upconversion spectral response tailoring using fanout QPM structures. In: Optics Letters (Article). DOI:10.1109/LPT.2018.2890015. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85059264255&doi=10.1109%2fLPT.2018.2890015&partnerID=40&md5=513cb3e1823a4191580b27f619a018f8>
- Beckerwerth, T. et al. (2019): High-speed balanced avalanche photodetector for homodyne detection. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1103/PhysRevApplied.11.014003. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85059845201&doi=10.1103%2fPhysRevApplied.11.014003&partnerID=40&md5=5b3e090c4a6085781188de5c663542cb>
- Beckerwerth, T. et al. (2019): Polarization Diverse Photodetector Chip Based on Waveguide Integrated MQW and Bulk Photodiodes. In: 2019 Compound Semiconductor Week, CSW 2019 - Proceedings (Conference Paper). DOI:10.1007/s10762-018-0563-6. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85059867963&doi=10.1007%2fs10762-018-0563-6&partnerID=40&md5=327f2a63c0a58abd4bd377f32174853f>
- Beer, M. et al. (2019): 2×192 Pixel CMOS SPAD-Based Flash LiDAR Sensor with Adjustable Background Rejection. In: 2018 25th IEEE International Conference on Electronics Circuits and Systems, (Conference Paper). DOI:10.1364/OE.27.000928. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85060081075&doi=10.1364%2fOE.27.000928&partnerID=40&md5=ba1306b97c5809c54c031c5ee6ee8d74>
- Belete, M. et al. (2019): Large Scale MoS<sub>2</sub>/Si Photodiodes with Graphene Transparent Electrodes. In: European Solid-State Device Research Conference (Conference Paper). DOI:10.1109/LPT.2019.2892851. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85060530483&doi=10.1109%2fLPT.2019.2892851&partnerID=40&md5=f20e821af072c0c1d4eb1c3fc05c72d7>
- Berenguer, P.W. et al. (2019): Real-Time Optical Wireless Mobile Communication With High Physical Layer Reliability. In: Journal of Lightwave Technology (Article). DOI:10.3390/molecules24030519. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85060958991&doi=10.3390%2fmolecules24030519&partnerID=40&md5=61e244264cb973dc0f1830f84e3f2921>
- Beyatli, E. et al. (2019): Efficient Tm:YAG and Tm:LuAG lasers pumped by red tapered diodes. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/JQE.2019.2893352. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061300309&doi=10.1109%2fJQE.2019.2893352&partnerID=40&md5=3f763b37665780dc7f5f2c90dfd45523>
- Beyatli, E. et al. (2019): Efficient Tm:YAG and Tm:LuAG lasers pumped by 681 nm tapered diodes. In: Applied Optics (Article). DOI:10.1109/ICSJ.2018.8602516. Link:

Research Fab Microelectronics Germany – Optoelectronic Systems  
**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab  
Microelectronics Germany (2019)**

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061749559&doi=10.1109%2fICSJ.2018.8602516&partnerID=40&md5=8a4c0b224c03aae691853ae778fee627>

- Beyreuther, A. et al. (2019): Contactless parametric characterization of bandgap engineering in p-type FinFETs using spectral photon emission. In: Microelectronics Reliability (Article). DOI: 10.1016/j.jcrysgro.2019.02.038. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061805748&doi=10.1016%2fj.jcrysgro.2019.02.038&partnerID=40&md5=c596ab361641bf5ea43281d85e198063>
- Blume, G. et al. (2019): Single mode 500 mW at 633 nm using I semiconductor master oscillator and a du stage amplifier. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/IEDM.2018.8614691. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061823300&doi=10.1109%2fIEDM.2018.8614691&partnerID=40&md5=27aaefc2a97f833624b3259312f45f77>
- Blume, G. et al. (2019): Comparison of AlGaInP red-emitting tapered amplifiers with and without ridge waveguide section. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1007/s00340-019-7153-8. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061834004&doi=10.1007%2fs00340-019-7153-8&partnerID=40&md5=853c264d41b181caa72d514fb66bcd66>
- Böhm, F. et al. (2019): On-chip integration of single solid-state quantum emitters with a SiO<sub>2</sub> photonic platform. In: New Journal of Physics (Article). DOI:10.1007/s11082-019-1792-1. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061895321&doi=10.1007%2fs11082-019-1792-1&partnerID=40&md5=d85dd8ca569c75cd268fd4196fef7a0d>
- Bottger, G. et al. (2019): Thin glass based photonic and electronic assemblies. In: 2018 IEEE CPMT Symposium Japan, ICSJ 2018 (Conference Paper). DOI:10.1109/ICECS.2018.8617916. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062293991&doi=10.1109%2fICECS.2018.8617916&partnerID=40&md5=2a503833edfb5403152497cc21b791cd>
- Braun, S. (2019): Fully integrated sensor electronics for inductive proximity switches operating up to 250 °C. In: IMAPS Additional Conferences (Device Packaging, HiTEC, HiTEN, & CICMT). Online journal (Article). DOI:10.1515/teme-2019-0006. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062449680&doi=10.1515%2feme-2019-0006&partnerID=40&md5=19b2aa9fd2470051e04d2024cb8036d0>
- Brendel, M. et al. (2019): Degradation of AlGaIn-based metal-semiconductor-metal photodetectors. In: Japanese Journal of Applied Physics (Article). DOI:10.1088/1748-0221/14/02/P02009. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062490250&doi=10.1088%2f1748-0221%2f14%2f02%2fP02009&partnerID=40&md5=bc1e0882c52d5a71a0e4682601d635dd>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Breuer, S. et al. (2019): Transition Metal Doped InGaAs Photoconductors for THz Detectors. In: 2019 Compound Semiconductor Week, CSW 2019 - Proceedings (Conference Paper). DOI: 10.1016/j.sse.2019.03.013. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062672176&doi=10.1016%2fj.sse.2019.03.013&partnerID=40&md5=d74c5a7ce3ea971976827b34b0408cd5>
- Brox, O. et al. (2019): Array with 24 distributed Bragg reflector lasers for scanning applications: Fabrication and characterisation. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/JLT.2018.2889899. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062835158&doi=10.1109%2fJLT.2018.2889899&partnerID=40&md5=f9781f229de6cb611b60b732205ba13e>
- Burla, M. et al. (2019): A 325 GHz Analog Photonic Link. In: 2019 IEEE International Topical Meeting on Microwave Photonics, MWP 2019 (Conference Paper). DOI:10.1002/aelm.201800776. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062938449&doi=10.1002%2faelm.201800776&partnerID=40&md5=e602599c7a6a628b362f7c577461af86>
- Burla, M. et al. (2019): 500 GHz Plasmonic Mach-Zehnder Modulator. In: 2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings (Conference Paper). DOI:10.1109/LPT.2019.2899943. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062997941&doi=10.1109%2fLPT.2019.2899943&partnerID=40&md5=b2869785c11f5868ad6790f635afbf59>
- Burla, M. et al. (2019): 500 GHz plasmonic Mach-Zehnder modulator enabling sub-THz microwave photonics. In: APL Photonics (Article). DOI:10.1038/s41566-019-0359-9. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063326272&doi=10.1038%2fs41566-019-0359-9&partnerID=40&md5=039b286c904d548fc543044cff99315b>
- Castro, C. et al. (2019): Experimental validation of coherent dsp for combined fibre-optical/terahertz-wireless links. In: Proceedings of the International Symposium on Wireless Communication Systems (Conference Paper). DOI: 10.1016/j.actaastro.2019.03.060. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063404564&doi=10.1016%2fj.actaastro.2019.03.060&partnerID=40&md5=bf28270336576996688ed2c3e8ab827b>
- Castro, C. et al. (2019): 32 GBd 16QAM Wireless Transmission in the 300 GHz Band using a PIN Diode for THz Upconversion. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). DOI:10.1364/OE.27.009106. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063420131&doi=10.1364%2fOE.27.009106&partnerID=40&md5=b4c28b79128179fb1dd0a8b7a04e98f0>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Christ, M. et al. (2019): Integrated atomic quantum technologies in demanding environments: development and qualification of miniaturized optical setups and integration technologies for UHV and space operation. In: CEAS Space Journal (Article). DOI:10.1007/s00340-019-7178-z. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063669797&doi=10.1007%2fs00340-019-7178-z&partnerID=40&md5=2bf262166095597aede70ad72a09faa5>
- Christ, M. et al. (2019): Development and qualification of miniaturized, uhv-compatible optical systems for integrated atomic quantum technologies. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/JLT.2019.2893500. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063789000&doi=10.1109%2fJLT.2019.2893500&partnerID=40&md5=9924b88f49abca842ecffae58713f5bb>
- Christopher, H. et al. (2019): A micro-integrated mode-locked extended-cavity diode laser emitting in the wavelength range around 780 nm. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063818464&partnerID=40&md5=99761e2533b77774d5e6a107decf45ce>
- Ciano, C. et al. (2019): Control of Electron-State Coupling in Asymmetric Ge/Si-Ge Quantum Wells. In: Physical Review Applied (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063820321&partnerID=40&md5=a5f6e0f7112cf53c7ba64157f2769556>
- Crump, P. et al. (2019): Efficient, high power pumps for mid-IR solid state lasers enabled by 200 K operation of 808 nm diode lasers. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063821804&partnerID=40&md5=6c9300e7c882f9c05348303d1f37d8df>
- Da Ros, F. et al. (2019): Optical phase conjugation in a silicon waveguide with lateral p-i-n diode for nonlinearity compensation. In: Journal of Lightwave Technology (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063822304&partnerID=40&md5=94a16062a39bc0304c267408a7d92d5b>
- Daumer, V. (2019): Type-II superlattices. A promising material for space applications. In: International Conference on Space Optics, ICSO 2018 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063824537&partnerID=40&md5=5904e4b40f953169c9c7a66b199a8673>
- Decker, J. et al. (2019): High brightness narrow-stripe broad-area lasers with 7 W optical output at 910, 935 & 970 nm for coarse spectral beam combining. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063825379&partnerID=40&md5=b5a7b95c5eba2108906048d5b53b9acb>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Della, Casa P. et al. (2019): High power broad-area lasers with buried implantation for current confinement. In: Semiconductor Science and Technology (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063830166&partnerID=40&md5=6a21b9fb714440def44a5932293891ab>
- Döpke, B. et al. (2019): Spectral broadening of mode-locked semiconductor lasers by resonator internal pulse shaping. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063831645&partnerID=40&md5=c2ecd323b32ee226dd5b59dc38d562cc>
- Duarte, V.C. et al. (2019): Modular coherent photonic-aided payload receiver for communications satellites. In: Nature Communications (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063832050&partnerID=40&md5=8446947867c057b7666563933cf10600>
- Dyck, A. et al. (2019): A dielectric-filled cavity-backed lens-coupled dipole antenna at 100 GHz. In: IEEE Radio and Wireless Symposium, RWS (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063834783&partnerID=40&md5=0000763d2811d205bdc30e75f27e2eff>
- Eckardt, A. et al. (2019): Status of the next generation CMOS-TDI detector for high-resolution imaging. In: Proceedings of SPIE - The International Society for Optical Engineering, (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063835035&partnerID=40&md5=065019fde57bc77ee98f31b442eb2bee>
- Eltes, F. et al. (2019): A BaTiO<sub>3</sub>-Based Electro-Optic Pockels Modulator Monolithically Integrated on an Advanced Silicon Photonics Platform. In: Journal of Lightwave Technology (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063838682&partnerID=40&md5=f6793978863332a8bc0e506516570dc6>
- Enslin, J. et al. (2019): Determination of Sapphire Off-Cut and Its Influence on the Morphology and Local Defect Distribution in Epitaxially Laterally Overgrown AlN for Optically Pumped UVC Lasers. In: Physica Status Solidi (A) Applications and Materials Science (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063844316&partnerID=40&md5=d29a08520c59d92af44d116f588069b5>
- Erkiliç, M.S. et al. (2019): Coherent ONU Designs for 50 Gb/s/λ PON. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063850927&partnerID=40&md5=7ccbeb77f9e79988d863bf220779684d>
- Feise, D. et al. (2019): High spectral radiance distributed Bragg reflector tapered diode lasers at 1060 nm with novel internal output DBR-grating. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063854267&partnerID=40&md5=0cfc7c3f11086ca13d03803d21690dbb>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Ferrari, A. et al. (2019): Multi-band optical systems to enable ultra-high speed transmissions. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063854949&partnerID=40&md5=bb59e609c0332b90ee7c17cd1555f45c>
- Ferrari, A. et al. (2019): Upgrade capacity scenarios enabled by multi-band optical systems. In: International Conference on Transparent Optical Networks (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063857460&partnerID=40&md5=8d9a033da91252074411d1b784861f88>
- Fitzau, O. et al. (2019): Highly stable fiber lasers for satellite-based gravitational measurements. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/JLT.2019.2893520. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063886434&doi=10.1109%2fJLT.2019.2893520&partnerID=40&md5=b7017117eea5106990fda445691dc9f>
- Flores, Y.V. et al. (2019): Advances in MOEMS-based external cavity QCLs for Mid-IR spectroscopy. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1109/LED.2019.2899878. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064069386&doi=10.1109%2fLED.2019.2899878&partnerID=40&md5=d33fd641d6069ccddfca012590b657a9>
- Flores, Y.V. et al. (2019): Advances in MOEMS-based external cavity QCLs. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1088/1361-6641/ab0148. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064076633&doi=10.1088%2f1361-6641%2fab0148&partnerID=40&md5=3204d2c3d4140f9fd6bd74493dd20f94>
- Freude, W. et al. (2019): Silicon photonics for coherent terahertz generation and detection. In: International Conference on Transparent Optical Networks (Conference Paper). DOI:10.1364/AO.58.002973. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064156069&doi=10.1364%2fAO.58.002973&partnerID=40&md5=4b58a5487c4cb6c7194a41333e4d0b5a>
- Fuchs, F. et al. (2019): Detection of explosives and their precursors using imaging mid-infrared laser backscattering spectroscopy. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/LPT.2019.2900156. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064352825&doi=10.1109%2fLPT.2019.2900156&partnerID=40&md5=6ade1e46fb4b2db2b851c16ad9030310>



**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Gard, N. et al. (2019): Image-based measurement by instrument tip tracking for tympanoplasty using digital surgical microscopy. In: Progress in Biomedical Optics and Imaging - Proceedings of SPIE (Conference Paper). DOI:10.3390/electronics8040377. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064626407&doi=10.3390%2felectronics8040377&partnerID=40&md5=1ea7437af42e3df6871ca34db3f4eede>
- Gerrer, T. et al. (2019): Adaptive lowerature covalent bonding of III-nitride thin films by extremely thin water interlayers. In: Applied Physics Letters (Article). DOI:10.1109/LPT.2019.2902089. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065062135&doi=10.1109%2fLPT.2019.2902089&partnerID=40&md5=e27ca4571c62ca7763a9799f13bd89c6>
- Girgenrath, L. et al. (2019): Characterization of the Charge Transfer in an Enhanced Pinned Photodiode with a Collection Gate. In: Springer Series in Optical Sciences, (Book Chapter). DOI:10.1038/s41467-019-10077-4. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065088921&doi=10.1038%2fs41467-019-10077-4&partnerID=40&md5=6e3e657033a93c135092a7e81ba268bd>
- Glaab, J. et al. (2019): Degradation of (In)AlGa<sub>N</sub>-Based UVB LEDs and Migration of Hydrogen. In: IEEE Photonics Technology Letters (Article). DOI:10.1364/PRJ.7.0000B7. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065325621&doi=10.1364%2fPRJ.7.0000B7&partnerID=40&md5=5bf1b0df7d28864fa20e3f8236921504>
- Gudyriev, S. et al. (2019): Coherent ePIC Receiver for 64 GBaud QPSK in 0.25 μm Photonic BiCMOS Technology. In: Journal of Lightwave Technology (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065465513&partnerID=40&md5=cfbfcfb3d605b58aa2133a279667adaa>
- Gutsch, F.B. et al. (2019): Towards a Strontium Beam Optical Reference Based on the 1S0 to 3P1 Intercombination Line on a Sounding Rocket. In: IFCS/EFTF 2019 - Joint Conference of the IEEE International Frequency Control Symposium and European Frequency and Time Forum, Proceedings (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065478071&partnerID=40&md5=1173735ba972a10f822e233044ec0df3>
- Guttmann, M. et al. (2019): Effect of quantum barrier composition on electro-optical properties of AlGa<sub>N</sub>-based UVC light emitting diodes. In: Semiconductor Science and Technology (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065478429&partnerID=40&md5=fa7f7298d4cbc49902f1eac055acd430>
- Guttmann, M. et al. (2019): Optical light polarization and light extraction efficiency of AlGa<sub>N</sub>-based LEDs emitting between 264 and 220 nm. In: Japanese Journal of Applied Physics (Article). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065482515&partnerID=40&md5=3d30bd24c0085aaa359c638af4f1299a>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Guty, F. et al. (2019): High peak power optical parametric amplification of a 7-9  $\mu\text{m}$  tunable external-cavity quantum cascade laser source. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065488289&partnerID=40&md5=35a486649c7562e889dd4e30cd47027e>
- Haertelt, M. et al. (2019): Advances of MOEMS-based external cavity QCLs. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065490709&partnerID=40&md5=42841544cf12bf657f6b3543bc7323c0>
- Hanafi, H. et al. (2019): Polycrystalline diamond photonic waveguides realized by femtosecond laser lithography. In: Optical Materials Express (Article). DOI:10.1117/12.2511063. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065643874&doi=10.1117%2f12.2511063&partnerID=40&md5=6c93a094e0c2e69f599a2f3cc7becafc>
- Harter, T. et al. (2019): Wireless THz link with optoelectronic transmitter and receiver. In: Optica (Article). DOI:10.1117/12.2509304. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065655932&doi=10.1117%2f12.2509304&partnerID=40&md5=8a703032ef8d331d4942eec6b03dc3fc>
- Harter, T. et al. (2019): Author Correction: Silicon-plasmonic integrated circuits for terahertz signal generation and coherent detection (Nature Photonics, (2018), 12, 10, (625-633), 10.1038/s41566-018-0237-x). In: Nature Photonics (Erratum). DOI:10.1117/12.2509544. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065656167&doi=10.1117%2f12.2509544&partnerID=40&md5=e3f9a6804d93930d50240a922b56b4a9>
- Hausler, K. et al. (2019): Highly reliable low noise pump sources for solid state lasers in laser communication terminals. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1117/12.2509916. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065658552&doi=10.1117%2f12.2509916&partnerID=40&md5=8ac0d66a4e9c50240c865bd7e9138f9d>
- Häusler, K. et al. (2019): Optimization of 808 nm DBR RW laser bars for operation at low noise and high reliability. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1117/12.2509546. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065663591&doi=10.1117%2f12.2509546&partnerID=40&md5=5e97f3ebf792ee92171847d2ea742bfa>
- Hayakawa, D. et al. (2019): Development of the Thin TOF-PET scanner based on fast monolithic silicon pixel sensors. In: Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment (Article). DOI:10.1117/12.2507407. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065675473&doi=10.1117%2f12.2507407&partnerID=40&md5=c19ebf2922c76103f21f918243073163>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Herzog, B. et al. (2019): Broadband Semiconductor Light Sources Operating at 1060 nm Based on InAs:Sb/GaAs Submonolayer Quantum Dots. In: IEEE Journal of Selected Topics in Quantum Electronics (Article). DOI:10.1117/12.2509776. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065800848&doi=10.1117%2f12.2509776&partnerID=40&md5=84bf69dfad510ebfe43f668803a26a27>
- Hofmann, J. et al. (2019): Quantitative analysis of the output power and linewidth of blue light laser sources for future holographic display applications. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1063/1.5078668. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065817332&doi=10.1063%2f1.5078668&partnerID=40&md5=f71e832b910e59a518ef9389435b366a>
- Hofstetter, D. et al. (2019): Measurement of internal polarization by QCSE induced level shift in AlGaIn quantum cascade emitters. In: IEEE Photonics Technology Letters (Article). DOI:10.1109/JSTQE.2019.2915949. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065995025&doi=10.1109%2fJSTQE.2019.2915949&partnerID=40&md5=734f341e09673bbf6649ea1e9c323a27>
- Holl, P. et al. (2019): GaSb-based 2µm semiconductor disk laser: Power scaling for optical pumping of Ho: YAG. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1117/12.2508396. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066011481&doi=10.1117%2f12.2508396&partnerID=40&md5=a3d6a7a1b198e109fa3549474d261168>
- Hoppe, M. et al. (2019): Construction and Characterization of External Cavity Diode Lasers Based on a Microelectromechanical System Device. In: IEEE Journal of Selected Topics in Quantum Electronics (Article). DOI:10.1117/12.2509606. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066028494&doi=10.1117%2f12.2509606&partnerID=40&md5=03b7bca90577519a02aabbf36c740843>
- Hügging, F. et al. (2019): Advanced through silicon vias for hybrid pixel detector modules. In: Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment (Review). DOI:10.1117/12.2506624. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066039268&doi=10.1117%2f12.2506624&partnerID=40&md5=ec6ec309da54f2185d37af87fb205da0>
- Jeschke, J. et al. (2019): Influence of silicon doping on internal quantum efficiency and threshold of optically pumped deep UV AlGaIn quantum well lasers. In: Semiconductor Science and Technology (Article). DOI:10.1109/JSTQE.2019.2912059. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066047334&doi=10.1109%2fJSTQE.2019.2912059&partnerID=40&md5=c4c29a36f7bde9294e28e723e9b094a6>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Jungnickel, V. et al. (2019): Enhance Lighting for the Internet of Things. In: 2019 Global LIFI Congress, GLC 2019 (Conference Paper). DOI:10.1117/12.2509526. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066152500&doi=10.1117%2f12.2509526&partnerID=40&md5=80528db6c21040deb1f72f5d3f7c5879>
- Kaltenbach, A. et al. (2019): Generation of 0.7 W second harmonic picosecond pulses near 560 nm using a DBR diode laser and a ridge-waveguide PPLN crystal. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/JLT.2019.2909683. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066424176&doi=10.1109%2fJLT.2019.2909683&partnerID=40&md5=e8ef14eaaf88f5a20878e9c6cf579881>
- Kalwa, L. (2019): Wafer-Level-3D-Integrationsverfahren für hochsensitive optische Sensoren. In: 20. GMA/ITG-Fachtagung Sensoren und Messsysteme 2019 (Konferenzbeitrag). DOI:10.1109/JLT.2019.2910931. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066435711&doi=10.1109%2fJLT.2019.2910931&partnerID=40&md5=30a10862600b4c71160f79c0c8dbf910>
- Kappel, E. et al. (2019): On a simultaneous use of fiber-Bragg-gratings and strain-gages to determine the stress-free temperature  $T_{sf}$  during GLARE manufacturing. In: Composite Structures (Article). DOI:10.1364/OL.44.002847. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066446843&doi=10.1364%2fOL.44.002847&partnerID=40&md5=13dd56127b5240fbd6718884e1abf54c>
- Karow, M.M. et al. (2019): Narrower far field and higher efficiency in 1 kW diode-laser bars using improved lateral structuring. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1117/12.2509762. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066607675&doi=10.1117%2f12.2509762&partnerID=40&md5=3cc563ec0402f19b5fcc93ea611789f3>
- Kastner, M. et al. (2019): Theoretical investigation of anti-index guiding inactively Q-switched two-section diode lasers. In: Semiconductor Science and Technology (Article). DOI:10.1117/12.2510030. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066608524&doi=10.1117%2f12.2510030&partnerID=40&md5=f561423011b38caffb5e3cc691652ff6>
- Kaul, T. et al. (2019): Impact of Carrier Nonpinning Effect on Thermal Power Saturation in GaAs-Based High Power Diode Lasers. In: IEEE Journal of Selected Topics in Quantum Electronics (Article). DOI:10.1109/JPHOT.2019.2917665. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066613763&doi=10.1109%2fJPHOT.2019.2917665&partnerID=40&md5=0b740fc007a3576b3f0eed2b0c1bcf73>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Keller, J. et al. (2019): Displacement and strain field measurements from SPM images. In: NanoScience and Technology (Book Chapter). DOI:10.1109/CLEOE-EQEC.2019.8872890. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066616853&doi=10.1109%2fCLEOE-EQEC.2019.8872890&partnerID=40&md5=abef7530c7e260f7e6df5879b179592b>
- Keyvaninia, S. et al. (2019): Novel photodetector chip for polarization diverse detection. In: Journal of Lightwave Technology (Article). DOI:10.1117/12.2511232. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066621948&doi=10.1117%2f12.2511232&partnerID=40&md5=3ca28cf3a6ae3dd130d697506a080ac0>
- Keyvaninia, S. et al. (2019): Highly efficient passive InP polarization rotator-splitter. In: Optics Express (Article). DOI:10.1117/12.2509895. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066622205&doi=10.1117%2f12.2509895&partnerID=40&md5=90ff505166b938af2f5d499d49f51e3d>
- Keyvaninia, S. et al. (2019): Highly efficient and fabrication-tolerant InP polarization rotator-splitter. In: 2019 Compound Semiconductor Week, CSW 2019 - Proceedings (Conference Paper). DOI:10.1117/12.2508443. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066628072&doi=10.1117%2f12.2508443&partnerID=40&md5=72a4f516c5f9e1c5e7afbe4479d88ffa>
- Killey, R.I. et al. (2019): Low Complexity Self-Coherent Transceivers for Metro, Access and Inter-Datacenter Applications. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). DOI:10.1117/12.2509543. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066732900&doi=10.1117%2f12.2509543&partnerID=40&md5=a18ff92115cad29e4768f1ca76567cbd>
- Kim, M. et al. (2019): A 4x25-Gbps Monolithically Integrated Si Photonic WDM Transmitter with Ring Modulators. In: 2019 8th Annual IEEE Photonics Society Optical Interconnects Conference, OI 2019 (Conference Paper). DOI:10.1117/12.2511090. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066738012&doi=10.1117%2f12.2511090&partnerID=40&md5=1081c4da4bfb1bf1e6d874c098301572>
- Kim, M. et al. (2019): Large-signal SPICE model for depletion-type silicon ring modulators. In: Photonics Research (Article). DOI:10.1117/12.2509454. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066740024&doi=10.1117%2f12.2509454&partnerID=40&md5=30f251379f934db6470bcfc3d588f413>
- Kim, M.-H. et al. (2019): A Temperature Controller IC for Maximizing Si Micro-Ring Modulator Optical Modulation Amplitude. In: Journal of Lightwave Technology (Article). DOI:10.1117/12.2513907. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066740102&doi=10.1117%2f12.2513907&partnerID=40&md5=20713dae72e5aaa42ea3be5ad77aec7a>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Klehr, A. et al. (2019): Polarisation-resolved investigations of the pico- and nanosecond dynamics of broad area distributed bragg reflector lasers under very high-current pulse excitation. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1117/12.2514807. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066751446&doi=10.1117%2f12.2514807&partnerID=40&md5=11fdd2dc925c533cde764b53ccb43bba>
- Klehr, A. et al. (2019): Nanosecond high-current pulsed operation of ridge-waveguide lasers. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1063/1.5086868. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066811967&doi=10.1063%2f1.5086868&partnerID=40&md5=84f1d7c86bb7917ccd69ac577c46a278>
- Knauer, A. et al. (2019): High power uvb light emitting diodes with optimized n-algan contact layers. In: Japanese Journal of Applied Physics (Article). DOI:10.1063/1.5095714. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066840206&doi=10.1063%2f1.5095714&partnerID=40&md5=9739f7fe2c3f2c172d292fbe90a124f1>
- Kneissl, M. et al. (2019): The emergence and prospects of deep-ultraviolet light-emitting diode technologies. In: Nature Photonics (Review). DOI:10.1364/OE.27.016767. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067069161&doi=10.1364%2fOE.27.016767&partnerID=40&md5=39de853461c895702382dc51fe7509b0>
- Knigge, A. et al. (2019): Wavelength stabilized 905 nm diode lasers in the 100 W class for automotive LiDAR. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1038/s41566-019-0487-2. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067072738&doi=10.1038%2fs41566-019-0487-2&partnerID=40&md5=5d4ed5b4db635d2cb7de084950c0947e>
- Koester, J.-P. et al. (2019): Simulation and design of a compact GaAs based tunable dual-wavelength diode laser system. In: Optical and Quantum Electronics (Article). DOI:10.1088/1367-2630/ab1144. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067078859&doi=10.1088%2f1367-2630%2fab1144&partnerID=40&md5=a786942748eb39cd2c148cc7ba84bb0c>
- Koester, J.-P. et al. (2019): Traveling Wave Model Based Simulation of Tunable Multi-Wavelength Diode Laser Systems. In: Proceedings of the International Conference on Numerical Simulation of Optoelectronic Devices, NUSOD (Conference Paper). DOI:10.3390/app9081588. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067097538&doi=10.3390%2fapp9081588&partnerID=40&md5=9769054b6a011b8eecab636ba766402d>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Kohfeldt, A. et al. (2019): Micro-integrated, narrow linewidth master oscillator power amplifier designed for quantum sensors in space. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/OIC.2019.8714557. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067196069&doi=10.1109%2fOIC.2019.8714557&partnerID=40&md5=da578ca5c2eca0e21e2dc807e5ca8de9>
- Kohlhaas, R.B. et al. (2019): THz TDS system with 105 dB dynamic range based on transition metal doped InGaAs. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1007/s12567-019-00252-0. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067654673&doi=10.1007%2fs12567-019-00252-0&partnerID=40&md5=bf5b78e164fd40a312359c6fd23ce1ae>
- Kohlhaas, R.B. et al. (2019): Photoconductive terahertz detectors with 105 dB peak dynamic range made of rhodium doped InGaAs. In: Applied Physics Letters (Article). DOI:10.1063/1.5088012. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067795176&doi=10.1063%2f1.5088012&partnerID=40&md5=bce4f87453017b85451cea2cc368661d>
- Kohlhaas, R.B. et al. (2019): THz transceiver with 6.5 THz bandwidth. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/JSTQE.2019.2919763. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067831578&doi=10.1109%2fJSTQE.2019.2919763&partnerID=40&md5=e8fa69b8bc381d15e74178d59a61aa07>
- Kolbe, T. et al. (2019): Influence of substrate off-cut angle on the performance of 310 nm light emitting diodes. In: Journal of Crystal Growth (Article). DOI:10.1109/LPT.2019.2920300. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068010975&doi=10.1109%2fLPT.2019.2920300&partnerID=40&md5=38266cc469c7e29328b23cc30f715a88>
- Kolpatzek, K. et al. (2019): Wideband Radiation Pattern Simulation and Measurement of a Photodiode-Based Continuous-Wave THz Emitter. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1117/12.2507425. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068089641&doi=10.1117%2f12.2507425&partnerID=40&md5=3f3bb5b9c8ee2f8c4636e49e163c4019>
- Kotzea, S. et al. (2019): Comparison of mcvd and mbe regrowth for cavet fabrication. In: Electronics (Switzerland) (Article). DOI:10.1117/12.2508470. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068089823&doi=10.1117%2f12.2508470&partnerID=40&md5=e4fb0ae6e10ec89f7d1a3d8a3cb5497a>
- Kouhini, S.M. et al. (2019): Use of Plastic Optical Fibers for Distributed MIMO in Li-Fi Systems. In: 2019 Global LIFI Congress, GLC 2019 (Conference Paper). DOI:10.1117/12.2509819. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0->

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

[85068133851&doi=10.1117%2f12.2509819&partnerID=40&md5=9148c29eab934ec71cba86f2587eefc7](https://doi.org/10.1117/12.2509819&partnerID=40&md5=9148c29eab934ec71cba86f2587eefc7)

- Krüger, M. et al. (2019): Improving the spectral performance of extended cavity diode lasers using angled-facet laser diode chips. In: Applied Physics B: Lasers and Optics (Article). DOI:10.1109/TVLSI.2019.2906680. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068213242&doi=10.1109%2fTVLSI.2019.2906680&partnerID=40&md5=dcca4f9303c2598a1e41f794a6ba738d>
- Kuhn, C. et al. (2019): MOVPE-grown AlGaIn-based tunnel heterojunctions enabling fully transparent UVC LEDs. In: Photonics Research (Article). DOI:10.1109/JSTQE.2019.2922109. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068218200&doi=10.1109%2fJSTQE.2019.2922109&partnerID=40&md5=fe81e0cb8460c50c72fea814cfcdae16>
- Ledentsov, N., Jr. et al. (2019): Energy efficient 850-nm VCSEL based optical transmitter and receiver link capable of 56 Gbit/s NRZ operation. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1063/1.5095816. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068264482&doi=10.1063%2f1.5095816&partnerID=40&md5=29c928cb45f80b3c8647db1bc0c14154>
- Liang, Y. et al. (2019): Design and Analysis of D-Band On-Chip Modulator and Signal Source Based on Split-Ring Resonator. In: IEEE Transactions on Very Large Scale Integration (VLSI) Systems (Article). DOI:10.1117/12.2509950. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068329083&doi=10.1117%2f12.2509950&partnerID=40&md5=795784ef809c91eddbac87c41ee806fa>
- Liebermeister, L. et al. (2019): Ultra-fast, High-Bandwidth Coherent cw THz Spectrometer for Non-destructive Testing. In: Journal of Infrared, Millimeter, and Terahertz Waves (Article). DOI:10.1117/12.2540345. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068364654&doi=10.1117%2f12.2540345&partnerID=40&md5=c7d250f1772f90459d5821af9341b50f>
- Liebermeister, L. et al. (2019): How to spare the phase modulator in fast-sweeping coherent cw THz systems. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.3390/batteries5010030. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068384671&doi=10.3390%2fbatteries5010030&partnerID=40&md5=9cf62e4de46a35e1cfcfdd41adf02c7>
- Liebermeister, L. et al. (2019): Realtime coherent cw THz system: Phase modulation without phase modulator. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1364/AO.58.005233. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068460932&doi=10.1364%2fAO.58.005233&partnerID=40&md5=d8072a2c8553089443ee4dd917859dce>



**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Liebermeister, L. et al. (2019): Continuous wave terahertz spectrometer with 2 THz bandwidth and update rates of 24 Hz. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1364/AO.58.005456. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068607222&doi=10.1364%2fAO.58.005456&partnerID=40&md5=7b96eb2499272f96d993e6a47cd2b85c>
- Lischke, S. et al. (2019): Advanced photonic BiCMOS technology with high-performance Ge photo detectors. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/RWS.2019.8714228. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068645615&doi=10.1109%2fRWS.2019.8714228&partnerID=40&md5=b82288447a43f0265ebc549e1f083dc9>
- Liu, F. et al. (2019): Innovative Sub-5- $\mu\text{m}$  Microvias by Picosecond UV Laser for Post-Moore Packaging Interconnects. In: IEEE Transactions on Components, Packaging and Manufacturing Technology (Article). DOI:10.1117/12.2512811. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068905533&doi=10.1117%2f12.2512811&partnerID=40&md5=325e21a21e5f09618ef9bf0771f2f79f>
- Liu, Y. et al. (2019): Understanding temperature impact on filament-related HfO<sub>2</sub> solid-state incandescent lighting emission devices and performance enhancement using patterned wafer approaches. In: IEEE Electron Device Letters (Article). DOI:10.1103/PhysRevApplied.11.064046. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068910654&doi=10.1103%2fPhysRevApplied.11.064046&partnerID=40&md5=3b68640762871b20317fdef47cda4d5e>
- Mahler, F. et al. (2019): Time-resolved photoluminescence from n-doped GaN/Al<sub>0.18</sub>Ga<sub>0.82</sub>N short-period superlattices probes carrier kinetics and long-term structural stability. In: Journal of Applied Physics (Article). DOI:10.1117/12.2512415. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068916563&doi=10.1117%2f12.2512415&partnerID=40&md5=2c481efe808a176cdca58c6007c0c41f>
- Mai, A. et al. (2019): Photonic thermal sensor integration towards electronic-photonic-IC technologies. In: European Solid-State Device Research Conference (Conference Paper). DOI:10.23919/CLEO.2019.8749992. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069181084&doi=10.23919%2fCLEO.2019.8749992&partnerID=40&md5=6d518dde8a167fc020e39491037f92c5>
- Mana, S.M. et al. (2019): Experiments in Non-Line-of-Sight Li-Fi Channels. In: 2019 Global LIFI Congress, GLC 2019 (Conference Paper). DOI:10.1117/12.2518424. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069769166&doi=10.1117%2f12.2518424&partnerID=40&md5=402bf6c989436628db334e4402a92a54>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Martin, D. et al. (2019): Current spreading suppression by O- and Si-implantation in high power broad area diode lasers. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1117/12.2518634. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069786867&doi=10.1117%2f12.2518634&partnerID=40&md5=5ad97c048ca790c49a7b0e34086db2b4>
- Martin, Y. et al. (2019): Flip-chip III-V-to-silicon photonics interfaces for optical sensor. In: Proceedings - Electronic Components and Technology Conference (Conference Paper). DOI:10.1016/j.nima.2019.162433. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069850656&doi=10.1016%2fj.nima.2019.162433&partnerID=40&md5=9ba6c8c5a33f5e9b0ff1b73504c4e919>
- Mehrpoor, G.R. et al. (2019): 64-GBd DP-Bipolar-8ASK Transmission over 120 km SSMF Employing a Monolithically Integrated Driver and MZM in 0.25- $\mu\text{m}$  SiGe BiCMOS Technology. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). DOI:10.1109/TED.2019.2920521. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069899059&doi=10.1109%2fTED.2019.2920521&partnerID=40&md5=47e631dbf4bf4c27870212449ffe6e7b>
- Merten, A. et al. (2019): Quasi-static MOEMS grating scanner for spectral tuning of a MIR quantum cascade laser [Quasi-statischer MOEMS-Gitterscanner zum spektralen Durchstimmen eines MIR-Quantenkaskadenlasers]. In: Technisches Messen (Article). DOI:10.1002/lpor.201800275. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069902838&doi=10.1002%2flpor.201800275&partnerID=40&md5=f397fb1ade75f005329c7b029e4af48d>
- Meyer, J. et al. (2019): Development of a polymeric arrayed waveguide grating interrogator for fast and precise lithium-ion battery status monitoring. In: Batteries (Article). DOI:10.1364/OME.9.003109. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070057000&doi=10.1364%2fOME.9.003109&partnerID=40&md5=e8cbdba5fb44551caa7d2d896beeb9f>
- Mihm, M. et al. (2019): ZERODUR<sup>®</sup> based optical systems for quantum gas experiments in space. In: Acta Astronautica (Article). DOI:10.1063/1.5101043. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070071124&doi=10.1063%2f1.5101043&partnerID=40&md5=2b3faecf199ce8d82830f4d22e1a352c>
- Monti, D. et al. (2019): High-Current Stress of UV-B (In)AlGaIn-Based LEDs: Defect-Generation and Diffusion Processes. In: IEEE Transactions on Electron Devices (Article). DOI:10.1109/JLT.2019.2908247. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070223001&doi=10.1109%2fJLT.2019.2908247&partnerID=40&md5=d1ea744b9a1c28a42e573f50817c62c7>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Muller, A. et al. (2019): Compact Diode Laser-Based Dual-Wavelength Master Oscillator Power Amplifier at 785 nm. In: IEEE Photonics Technology Letters (Article). DOI:10.1109/JSTQE.2019.2925926. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070322269&doi=10.1109%2fJSTQE.2019.2925926&partnerID=40&md5=1247326cf4148bae17b3912e52573de2>
- Müller, A. et al. (2019): Reliability of high-power 1030nm DBR tapered diode lasers with different lateral layouts. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.3390/app9152987. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070557247&doi=10.3390%2fapp9152987&partnerID=40&md5=274410e209e6e53295236b6bb401d23a>
- Müller, R. et al. (2019): High operating temperature InAs/GaSb type-II superlattice detectors on GaAs substrate for the long wavelength infrared. In: Infrared Physics and Technology (Article). DOI:10.7567/1347-4065/ab0cfc. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070658976&doi=10.7567%2f1347-4065%2fab0cfc&partnerID=40&md5=201cb7ecc9c6ed85206f02c37c7865be>
- Müller, R. et al. (2019): Advances on photoconductive InAs/GaSb type-II superlattice long-wavelength infrared detectors for high operating temperature. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1364/PRJ.7.000B36. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070753990&doi=10.1364%2fPRJ.7.000B36&partnerID=40&md5=c1fa90fb246cb30e5e633fcbdf6aeab2>
- Nagel, M. et al. (2019): Advanced photoconductive Terahertz near-field microprobes for 1550 nm wavelength operation based on InGaAs:Rh. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.7567/1347-4065/ab0d09. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070775693&doi=10.7567%2f1347-4065%2fab0d09&partnerID=40&md5=ff453d7438a517708210001c000ded19>
- Nair, S.R. et al. (2019): Towards room-temperature laser magnetometry with NV centres in open fibre cavities. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1038/s41598-019-47472-2. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070860977&doi=10.1038%2fs41598-019-47472-2&partnerID=40&md5=876080c9795dfc5120eaf4364e666f81>
- Nedjalkov, A. et al. (2019): Refractive index measurement of lithium ion battery electrolyte with etched surface cladding waveguide bragg gratings and cell electrode state monitoring by optical strain sensors. In: Batteries (Article). DOI:10.1088/1361-6641/ab2c1a. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070929195&doi=10.1088%2f1361-6641%2fab2c1a&partnerID=40&md5=b2bf2716c7f5e94e8eed7aab008b96d9>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Nellen, S. et al. (2019): Direct Comparison of PIN and UTC Photodiodes for Continuous-Wave Terahertz Emission. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.7567/1347-4065/ab0f13. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070972041&doi=10.7567%2f1347-4065%2fab0f13&partnerID=40&md5=ccd45ac080a4af1d34659d31a8969ab8>
- Niemeyer, M. et al. (2019): High-power-class QCW red laser bars and stacks for pump and direct application. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.7567/1347-4065/ab1128. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071229127&doi=10.7567%2f1347-4065%2fab1128&partnerID=40&md5=b9cca3143a2a47e6f2b1c06c61182039>
- Nishida, T. et al. (2019): Multi-emitter 638-nm high-power broad area laser diodes for display application. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1063/1.5111664. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071322572&doi=10.1063%2f1.5111664&partnerID=40&md5=917b3b20d06a78a41acf3c1f55ebd2af>
- Niu, G. et al. (2019): Advanced Coherent X-ray Diffraction and Electron Microscopy of Individual InP Nanocrystals on Si Nanotips for III-V-on-Si Electronics and Optoelectronics. In: Physical Review Applied (Article). DOI:10.1364/OE.27.025872. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071527269&doi=10.1364%2fOE.27.025872&partnerID=40&md5=7f8d33d597cbbc964654f0863992a802>
- Nuck, M. et al. (2019): 3D photonic integrated 4x4 multi-mode interference coupler. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/EuCNC.2019.8801983. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071723189&doi=10.1109%2fEuCNC.2019.8801983&partnerID=40&md5=9c15ac31a166aecbde6ce4de97bb5ddd>
- Pahl, J. et al. (2019): Compact and robust diode laser system technology for dual-species ultracold atom experiments with rubidium and potassium in microgravity. In: Applied Optics (Article). DOI:10.1109/NUSOD.2019.8806928. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071849020&doi=10.1109%2fNUSOD.2019.8806928&partnerID=40&md5=0cb1caed570dc9d948fd37795c482b4a>
- Pan, T.-F. et al. (2019): Generation of multi-wavelength yellow-orange lasers using chi(2) chirped nonlinear photonic crystals. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/VR.2019.8797682. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071879305&doi=10.1109%2fVR.2019.8797682&partnerID=40&md5=d804fef0c62ca48ee028547d9131fe0c>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Paoloni, C. et al. (2019): Technology for D-band/G-band ultra capacity layer. In: 2019 European Conference on Networks and Communications, EuCNC 2019 (Conference Paper). DOI:10.1109/TRANSDUCERS.2019.8808288. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071950619&doi=10.1109%2fTRANSDUCERS.2019.8808288&partnerID=40&md5=5d12e8688d9d20d67c2a34d1c32318f0>
- Paolozzi, L. et al. (2019): Characterization of the demonstrator of the fast silicon monolithic ASIC for the TT-PET project. In: Journal of Instrumentation (Article). DOI:10.1016/j.jcrysgro.2019.125241. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072255206&doi=10.1016%2fj.jcrysgro.2019.125241&partnerID=40&md5=669d4235bb9cc5b92a8502339211d4ee>
- Paraskevopoulos, A. et al. (2019): Design of a secure software-defined access network for flexible Industry 4.0 manufacturing - The SESAM-project concept. In: 2019 Global LIFI Congress, GLC 2019 (Conference Paper). DOI:10.1109/ECTC.2019.00165. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072283740&doi=10.1109%2fECTC.2019.00165&partnerID=40&md5=7362f4f1695268e20f4787f8145ee9c5>
- Park, S. et al. (2019): CsPbX<sub>3</sub>/SiO<sub>x</sub> (X = Cl, Br, I) monoliths prepared via a novel sol-gel route starting from Cs<sub>4</sub>PbX<sub>6</sub> nanocrystals. In: Nanoscale (Article). DOI:10.1109/ECTC.2019.00166. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072301644&doi=10.1109%2fECTC.2019.00166&partnerID=40&md5=e654c3aaf63e2297b012a71e10a3e065>
- Parsapour, F. et al. (2019): Material Parameter Extraction for Complex AlScN Thin Film Using Dual Mode Resonators in Combination with Advanced Microstructural Analysis and Finite Element Modeling. In: Advanced Electronic Materials (Article). DOI:10.1515/aot-2019-0039. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072371300&doi=10.1515%2faot-2019-0039&partnerID=40&md5=8ec59083ef3594ba7012006a9b62592a>
- Pintus, P. et al. (2019): PWM-Driven Thermally Tunable Silicon Microring Resonators: Design, Fabrication, and Characterization. In: Laser and Photonics Reviews (Article). DOI:10.1109/TCPMT.2019.2941866. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072515382&doi=10.1109%2fTCPMT.2019.2941866&partnerID=40&md5=8c82051ddcef3558c17df1153c35d952>
- Pulwer, S. et al. (2019): Endoscopic orientation by multimodal data fusion. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/JSTQE.2019.2933784. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072524757&doi=10.1109%2fJSTQE.2019.2933784&partnerID=40&md5=096ae5b02cf016e5ae760a601c83816e>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Pyrlík, C. et al. (2019): Integrated Thermal Silica Micro-Resonator Waveguide System with Ultra-Low Fluorescence. In: IEEE Photonics Technology Letters (Article). DOI:10.1364/OE.27.027891. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072716331&doi=10.1364%2fOE.27.027891&partnerID=40&md5=a3ba1d5976b6ff1827314d51ec94f3fe>
- Radosavljević, S. et al. (2019): Thermally Tunable Quantum Cascade Laser with an External Germanium-on-SOI Distributed Bragg Reflector. In: IEEE Journal of Selected Topics in Quantum Electronics (Article). DOI:10.1109/ICIPRM.2019.8819358. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072961355&doi=10.1109%2fICIPRM.2019.8819358&partnerID=40&md5=2678232f12e2f06949044658e1a1eace>
- Radziunas, M. et al. (2019): Efficient coupling of dynamic electro-optical and heat-transport models for high-power broad-area semiconductor lasers. In: Optical and Quantum Electronics (Article). DOI:10.1109/ICIPRM.2019.8819118. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072974189&doi=10.1109%2fICIPRM.2019.8819118&partnerID=40&md5=f6b8ea836275d9ee8f33d1eb27a3934c>
- Radziunas, M. et al. (2019): Coexistence of multiple stable continuous-wave states in micro-integrated external-cavity diode lasers. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/ICIPRM.2019.8819317. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072978818&doi=10.1109%2fICIPRM.2019.8819317&partnerID=40&md5=ff3f9176d1f64ffd95b9cec4fc2d8901>
- Rahim, A. et al. (2019): Open-access silicon photonics platforms in Europe. In: IEEE Journal of Selected Topics in Quantum Electronics (Article). DOI:10.1109/ICTON.2019.8840550. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073048204&doi=10.1109%2fICTON.2019.8840550&partnerID=40&md5=64d952428ba00943df7d0099b2ce8981>
- Ruhnke, N. et al. (2019): Narrowband GaN external cavity diode laser with 400 mW output power at 445 nm for deep ultraviolet frequency doubling. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/ICTON.2019.8840408. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073053220&doi=10.1109%2fICTON.2019.8840408&partnerID=40&md5=2708bc93667bef712d962ec6cf7c43d9>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Runge, P. et al. (2019): Linearity of waveguide integrated modified uni-travelling carrier photodiode arrays. In: IEEE Photonics Technology Letters (Article). DOI:10.1109/ICTON.2019.8840155. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073056934&doi=10.1109%2fICTON.2019.8840155&partnerID=40&md5=49ffbd2acf812a377a3d90d599bc71ba>
- Runge, P. et al. (2019): Photodetector with Monolithically Integrated SOA for Pre-Amplification of High-Speed Signals with 56Gbd and above. In: 2019 Optical Fiber Communications Conference and Exhibition, OFC 2019 - Proceedings (Conference Paper). DOI:10.1364/PRJ.7.000948. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073114095&doi=10.1364%2fPRJ.7.000948&partnerID=40&md5=4a116524006af552f33b9869ed69b156>
- Ruschel, J. et al. (2019): Current-induced degradation and lifetime prediction of 310 nm ultraviolet light-emitting diodes. In: Photonics Research (Article). DOI:10.1088/1361-6641/ab39b8. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073215709&doi=10.1088%2f1361-6641%2fab39b8&partnerID=40&md5=0e92cbfdee20222c3b845d334c7073c0>
- Rustige, P. et al. (2019): Influence of the Doppler effect of a periodically moving mirror on the carrier-envelope frequency of a pulse train. In: Optics Letters (Article). DOI:10.1007/s11082-019-2050-2. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073238276&doi=10.1007%2fs11082-019-2050-2&partnerID=40&md5=284d76ad65868755949b9df5b2444a39>
- Rutz, F. (2019): Low-light-level SWIR photodetectors based on the InGaAs material system. In: Electro-Optical and Infrared Systems: Technology and Applications XVI (Conference Paper). DOI:10.1364/OPTICA.6.001063. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073370587&doi=10.1364%2fOPTICA.6.001063&partnerID=40&md5=33ca3e110bd9444cf1346ede3aac0351>
- Rutz, F. et al. (2019): InGaAs APD matrix sensors for SWIR gated viewing. In: Advanced Optical Technologies (Article). DOI:10.1039/c9nr07766a. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073484486&doi=10.1039%2fc9nr07766a&partnerID=40&md5=3808cf236a57281945b3bb9b3d1d3cde>
- Rutz, F. et al. (2019): InGaAs SWIR photodetectors for night vision. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1063/1.5110722. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073627907&doi=10.1063%2f1.5110722&partnerID=40&md5=051d29739b2f87444081a5f0215310f6>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Sackey, I. et al. (2019): 400-Gb/s Single-Photodiode Polarization-Agnostic Kramers-Kronig Reception of Distributedly Aggregated Superchannel. In: Journal of Lightwave Technology (Article). DOI:10.1016/j.compstruct.2019.111279. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073663968&doi=10.1016%2fj.compstruct.2019.111279&partnerID=40&md5=7a3cc25e4b782abf1c2381af0fc496b1>
- Sahm, A. et al. (2019): Miniaturized watt-level laser modules emitting in the yellow-green spectral range for biophotonic applications. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1007/978-3-642-35792-3\_8. Link: [https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073697059&doi=10.1007%2f978-3-642-35792-3\\_8&partnerID=40&md5=cb3ba5549cd1348b6c07f7018c0a57a8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073697059&doi=10.1007%2f978-3-642-35792-3_8&partnerID=40&md5=cb3ba5549cd1348b6c07f7018c0a57a8)
- Sauer, P. et al. (2019): Passively mode-locked quantum-well semiconductor laser subject to ultra-short optical self-feedback with nanometric fine-delay. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1117/12.2526743. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073709790&doi=10.1117%2f12.2526743&partnerID=40&md5=85bed28012e533d8af0fc86e00595bf8>
- Schiemangk, M. et al. (2019): Ultra-narrow linewidth diode laser based on resonant optical feedback. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/FCS.2019.8856031. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073770557&doi=10.1109%2fFCS.2019.8856031&partnerID=40&md5=8f7bdf74a8eb722ceb72e6a5f31bbd71>
- Schimmel, G. et al. (2019): Coherent combining of two high-brightness laser diodes phase-locked by a Michelson-type external cavity. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1063/1.5120019. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073772350&doi=10.1063%2f1.5120019&partnerID=40&md5=f82f2378d62208aaa453c6ebb5f3ef78>
- Schulz, D. et al. (2019): Outdoor measurements using an optical wireless link for fixed-access applications. In: Journal of Lightwave Technology (Article). DOI:10.3390/batteries5040066. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074194146&doi=10.3390%2fbatteries5040066&partnerID=40&md5=ea2310d9b0f8ae0205be71e3dbbaac4e>
- Seiler, P.M. et al. (2019): Novel concept for VCSEL enhanced silicon photonic coherent transceiver. In: AIP Advances (Article). DOI:10.1109/GLC.2019.8864130. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074247620&doi=10.1109%2fGLC.2019.8864130&partnerID=40&md5=8b03fb64f5706da316a6ea285f098674>



**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Shariati, B. et al. (2019): Photonics-supported 5G test facilities for low latency applications. In: International Conference on Transparent Optical Networks (Conference Paper). DOI:10.1063/1.5127692. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074247806&doi=10.1063%2f1.5127692&partnerID=40&md5=f31cfc9445ac2b86302cebdac26d782d>
- Sirbu, B. et al. (2019): 3D silicon photonics interposer for Tb/s optical interconnects in data centers with double-side assembled active components and integrated optical and electrical through silicon via on SOI. In: Proceedings - Electronic Components and Technology Conference (Conference Paper). DOI:10.1109/GLC.2019.8864133. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074271597&doi=10.1109%2fGLC.2019.8864133&partnerID=40&md5=d91aa495a6e190de8c9841ce3801ac85>
- Sirbu, B. et al. (2019): Unidirectional data center interconnects enabled by the use of broken-symmetry gap plasmon resonators (BS-GPR). In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/GLC.2019.8864131. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074276734&doi=10.1109%2fGLC.2019.8864131&partnerID=40&md5=379579fe07ee3b009a80cc6780857ded>
- Smith, J. et al. (2019): Beam Profile Investigation of an Optoelectronic Continuous-Wave Terahertz Emitter. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1109/GLC.2019.8864126. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074303357&doi=10.1109%2fGLC.2019.8864126&partnerID=40&md5=38ae0d354fb1ef368dc2ba38bd7d5c9b>
- Soares, F.M. et al. (2019): InP-based foundry PICs for optical interconnects. In: Applied Sciences (Switzerland) (Article). DOI:10.1364/OE.27.032409. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074356158&doi=10.1364%2fOE.27.032409&partnerID=40&md5=ac73e90ddd221258cf03e0e0456e160e>
- Soares, F.M. et al. (2019): InP-Based Generic Photonic Integration - Capabilities and Limitations. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1364/OL.44.005246. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074410405&doi=10.1364%2fOL.44.005246&partnerID=40&md5=da77e775f106155e408db4822b222dd6>
- Stark, D. et al. (2019): Si-based n-type THz Quantum Cascade Emitter. In: International Conference on Infrared, Millimeter, and Terahertz Waves, IRMMW-THz (Conference Paper). DOI:10.1002/adfm.201906022. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074603542&doi=10.1002%2fadfm.201906022&partnerID=40&md5=8edd170f97d1256e23523a68bbef315b>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Steglich, P. et al. (2019): Optical biosensors based on silicon-on-insulator ring resonators: A review. In: *Molecules* (Article). DOI:10.1117/12.2530143. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074608534&doi=10.1117%2f12.2530143&partnerID=40&md5=3687ef1ce307c8d964c4a813dbc30c65>
- Steglich, P. et al. (2019): Silicon-organic hybrid photonic devices in a photonic integrated circuit technology. In: *ECS Journal of Solid State Science and Technology* (Article). DOI:10.1109/CLEOE-EQEC.2019.8871872. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074632923&doi=10.1109%2fCLEOE-EQEC.2019.8871872&partnerID=40&md5=3739407d32abd09191dd4c56d70bba51>
- Steglich, P. et al. (2019): Quadratic electro-optical silicon-organic hybrid RF modulator in a photonic integrated circuit technology. In: *Technical Digest - International Electron Devices Meeting, IEDM* (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8872647. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074634453&doi=10.1109%2fCLEOE-EQEC.2019.8872647&partnerID=40&md5=cfbf3c76882d93d01aa59b397a732de7>
- Steglich, P. et al. (2019): On-Chip Dispersion Measurement of the Quadratic Electro-Optic Effect in Nonlinear Optical Polymers Using a Photonic Integrated Circuit Technology. In: *IEEE Photonics Journal* (Article). DOI:10.1109/CLEOE-EQEC.2019.8872972. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074635041&doi=10.1109%2fCLEOE-EQEC.2019.8872972&partnerID=40&md5=6ea3127ddc63853e0877dd9dc85b774d>
- Steudel, F. et al. (2019): Erratum: Pixelated phosphors for high-resolution and high-contrast white light sources (*Optics Express* (2018) 26 (26134-26144) DOI: 10.1364/OE.26.026134). In: *Optics Express* (Erratum). DOI:10.1109/CLEOE-EQEC.2019.8872180. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074635826&doi=10.1109%2fCLEOE-EQEC.2019.8872180&partnerID=40&md5=9c35414803c8ccae88fd683077df6273>
- Stocchi, M. et al. (2019): Advanced numerical investigation of the heat flux in an array of microbolometers. In: *Scientific reports* (Article). DOI:10.1109/CLEOE-EQEC.2019.8872371. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074635884&doi=10.1109%2fCLEOE-EQEC.2019.8872371&partnerID=40&md5=f3316ec3c59bd2b65875c5164c2f3b94>
- Stocchi, M. et al. (2019): Mid-infrared optical characterization of thin SiNx membranes. In: *Applied Optics* (Article). DOI:10.1109/CLEOE-EQEC.2019.8873109. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074638054&doi=10.1109%2fCLEOE-EQEC.2019.8873109&partnerID=40&md5=076b3a35983e5c01aca843f8787d6d9a>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Sumpf, B. et al. (2019): Tunable Y-branch dual-wavelength diode lasers in the VIS and NIR range for sensor applications. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8872834. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074641745&doi=10.1109%2fCLEOE-EQEC.2019.8872834&partnerID=40&md5=08d5a57065d7e138589f99ad97337f01>
- Sumpf, B. et al. (2019): Controllable dual-wavelength-stabilized Y-branch DBR diode lasers at 785 nm for shifted excitation Raman difference spectroscopy. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8872824. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074642075&doi=10.1109%2fCLEOE-EQEC.2019.8872824&partnerID=40&md5=a7fcd55f6ca4c3bc4419f7b37b024cc6>
- Sumpf, B. et al. (2019): Tailored diode lasers: Enabling Raman spectroscopy in the presence of disturbing fluorescence and background light. In: Progress in Biomedical Optics and Imaging - Proceedings of SPIE (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8872782. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074646222&doi=10.1109%2fCLEOE-EQEC.2019.8872782&partnerID=40&md5=7c85bbec4e0559287feedceccd43f9bf>
- Surkamp, N. et al. (2019): Modelocked diode lasers for THz asynchronous optical sampling. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8871716. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074647016&doi=10.1109%2fCLEOE-EQEC.2019.8871716&partnerID=40&md5=82da41a4739618d88c14d2aec5aaf73e>
- Tawfieg, M. et al. (2019): Widely tunable watt-level MOPA systems emitting at 976 nm. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8871616. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074657558&doi=10.1109%2fCLEOE-EQEC.2019.8871616&partnerID=40&md5=250d9fab87fb05f349a75ec52225ffdf>
- Tawfieg, M. et al. (2019): Characterization and comparison between two coupling concepts of four-wavelength monolithic DBR ridge waveguide diode laser at 970 nm. In: Applied Physics B: Lasers and Optics (Article). DOI:10.1109/CLEOE-EQEC.2019.8873001. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074662740&doi=10.1109%2fCLEOE-EQEC.2019.8873001&partnerID=40&md5=4c237f5771969c5210a64b8aad5032d3>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Testa, F. et al. (2019): Integrated reconfigurable silicon photonics switch matrix in IRIS project: Technological achievements and experimental results. In: Journal of Lightwave Technology (Article). DOI:10.1109/CLEOE-EQEC.2019.8872247. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074665078&doi=10.1109%2fCLEOE-EQEC.2019.8872247&partnerID=40&md5=d3e380ee55cbb20c5cb300eb0793b046>
- Theurer, L.S. et al. (2019): Dual-wavelength Y-branch DBR-RW diode laser at 785 nm with adjustable spectral distance from 0 up to 1.6 nm. In: 2019 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2019 (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8872441. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074666276&doi=10.1109%2fCLEOE-EQEC.2019.8872441&partnerID=40&md5=12a493efa9d88487564a95fd0f4ddfdf>
- Theurer, M. et al. (2019): Flip-chip integration of InP and SiN. In: IEEE Photonics Technology Letters (Article). DOI:10.1109/CLEOE-EQEC.2019.8872923. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074666970&doi=10.1109%2fCLEOE-EQEC.2019.8872923&partnerID=40&md5=8c6db4e081bac1be143432b0bf25408e>
- Tholl, H.D. et al. (2019): Rate equation modelling of the power-versus-current characteristics of high power mid-infrared quantum cascadelasers. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1109/CLEOE-EQEC.2019.8872692. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074669351&doi=10.1109%2fCLEOE-EQEC.2019.8872692&partnerID=40&md5=95cf4992d739202f361bd6dc8679f0a0>
- Trager-Cowan, C. et al. (2019): Scanning electron microscope as a flexible tool for investigating the properties of UV-emitting nitride semiconductor thin films. In: Photonics Research (Article). DOI:10.1109/CLEOE-EQEC.2019.8871830. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074671043&doi=10.1109%2fCLEOE-EQEC.2019.8871830&partnerID=40&md5=26f1af41aa3eb223e349ecb5004bc34f>
- Türk, S. et al. (2019): Optimization of the dielectric layer for electrowetting on dielectric. In: Integration, (Article). DOI:10.1109/CLEOE-EQEC.2019.8872586. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074672306&doi=10.1109%2fCLEOE-EQEC.2019.8872586&partnerID=40&md5=0680695f8774c6691b565224860b2517>
- Türk, S. et al. (2019): Diamond like carbon as a hydrophobic material for electrowetting. In: 3rd YRA MedTech Symposium "Young Researchers Academy MedTech in NRW" 2019. Symposium Proceedings (Conference Paper). DOI:10.1109/ISWCS.2019.8877328. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074672656&doi=10.1109%2fISWCS.2019.8877328&partnerID=40&md5=d6313aa8c793e16b670033c4d6fdd905>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Türk, S. et al. (2019): Mikrostrukturierung für super-hydrophobe Oberflächen in Electrowetting. In: MikroSystemTechnik Kongress 2019 (Konferenzbeitrag). DOI:10.1109/IRMMW-THz.2019.8874527. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074682015&doi=10.1109%2fIRMMW-THz.2019.8874527&partnerID=40&md5=5162524bae59bea2ce67eef1751380ce>
- von den Driesch, N. et al. (2019): Epitaxy of Si-Ge-Sn-based heterostructures for CMOS-integratable light emitters. In: Solid-State Electronics (Article). DOI:10.1109/IRMMW-THz.2019.8874086. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074692646&doi=10.1109%2fIRMMW-THz.2019.8874086&partnerID=40&md5=a4d60914837fcf2ee878d776d8d7c2f2>
- Walde, S. et al. (2019): Impact of intermediate high temperature annealing on the properties of aln/sapphire templates grown by metalorganic vapor phase epitaxy. In: Japanese Journal of Applied Physics (Article). DOI:10.1109/IRMMW-THz.2019.8874041. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074708380&doi=10.1109%2fIRMMW-THz.2019.8874041&partnerID=40&md5=990b0bf5889aa006dd78375ecb771f72>
- Walther, M. et al. (2019): Industrialization of type-II superlattice infrared detector technology at Fraunhofer IAF. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1109/IRMMW-THz.2019.8874354. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074708731&doi=10.1109%2fIRMMW-THz.2019.8874354&partnerID=40&md5=056683d1e1f80d9d643d02ad4017d1b0>
- Watanabe, S. et al. (2019): Wavelength conversion using fiber cross-phase modulation driven by two pump waves. In: Optics Express (Article). DOI:10.1109/IRMMW-THz.2019.8874180. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074709143&doi=10.1109%2fIRMMW-THz.2019.8874180&partnerID=40&md5=b742a7001a109820add2f7320f5eddb7>
- Weikum, M.K. et al. (2019): EuPRAXIA - A compact, cost-efficient particle and radiation source. In: AIP Conference Proceedings (Conference Paper). DOI:10.1109/IRMMW-THz.2019.8873904. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074715959&doi=10.1109%2fIRMMW-THz.2019.8873904&partnerID=40&md5=d2909f90506aa8571be1058a5a82f925>
- Weinrich, J. et al. (2019): Extra half-plane shortening of dislocations as an origin of tensile strain in Si-doped (Al)GaN. In: Journal of Applied Physics (Article). DOI:10.1109/IRMMW-THz.2019.8874488. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074716863&doi=10.1109%2fIRMMW-THz.2019.8874488&partnerID=40&md5=839f5ab55b631db71e57b868c2d793fc>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Werner, N. et al. (2019): Multi watt-level picosecond micro-laser sources in the yellow-green spectral range. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper). DOI:10.1364/PRJ.7.000B73. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074723108&doi=10.1364%2fPRJ.7.000B73&partnerID=40&md5=e35f006b41b0bc7e8c15ec907cd7e221>
- Wiegand, B. et al. (2019): A single-laser alternating-frequency magneto-optical trap. In: Review of Scientific Instruments (Article). DOI:10.1109/IRMMW-THz.2019.8874173. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074728970&doi=10.1109%2fIRMMW-THz.2019.8874173&partnerID=40&md5=7ea8a5697a93deee87ec10e56f2423>
- Winterfeldt, M. et al. (2019): Increased slow-axis beam quality in 9xx nm high power broad area diode lasers by modifying the lateral current profile at the device edges. In: Proceedings 2015 European Conference on Lasers and Electro-Optics - European Quantum Electronics Conference, CLEO/Europe-EQEC 2015 (Conference Paper). DOI:10.1002/pssa.201900682. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075022890&doi=10.1002%2fpssa.201900682&partnerID=40&md5=23cf253850271ef44c778de5fdb15cdc>
- Wisotzky, E.L. et al. (2019): Validation of two techniques for intraoperative hyperspectral human tissue determination. In: Progress in Biomedical Optics and Imaging - Proceedings of SPIE (Conference Paper). DOI:10.1109/MWP.2019.8892257. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075373024&doi=10.1109%2fMWP.2019.8892257&partnerID=40&md5=7c95bb4b7177f835646a0541c03982e7>
- Wisotzky, E.L. et al. (2019): Interactive and multimodal-based augmented reality for remote assistance using a digital surgical microscope. In: 26th IEEE Conference on Virtual Reality and 3D User Interfaces, VR 2019 - Proceedings (Conference Paper). DOI:10.1039/c9ra05918k. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075623800&doi=10.1039%2fc9ra05918k&partnerID=40&md5=03f04395401565f6eacc8c0c12fc8e18>
- Wisotzky, E.L. et al. (2019): Determination of optical properties of human tissues obtained from parotidectomy in the spectral range of 250 to 800 nm. In: Progress in Biomedical Optics and Imaging - Proceedings of SPIE (Conference Paper). DOI:10.1149/2.0221911jss. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075640339&doi=10.1149%2f2.0221911jss&partnerID=40&md5=f8fb3670e4abd0bf6af5635b78860de5>
- Wöbbeking, K. et al. (2019): Conical microstructuring of titanium by reactive gas assisted laser texturing. In: RSC Advances (Article). DOI:10.1109/ESSDERC.2019.8901801. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075717090&doi=10.1109%2fESSDERC.2019.8901801&partnerID=40&md5=ae6e899fd803400041d03f58bd944c9a>

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab Microelectronics Germany (2019)**

- Wolf, J. et al. (2019): Assessment of Additive Manufacturing Processes for Monolithic Diffractive-Refractive Micro-Components. In: 2019 20th International Conference on Solid-State Sensors, Actuators and Microsystems and Eurosensors XXXIII, TRANSDUCERS 2019 and EUROSENSORS XXXIII (Conference Paper). DOI:10.1109/ESSDERC.2019.8901718. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075722779&doi=10.1109%2fESSDERC.2019.8901718&partnerID=40&md5=326ae1cdc6aad791f7d59ddf06c8cbc3>
- Yang, Q.K. et al. (2019): Broadly tunable hetero-cascading quantum cascade lasers: Design, growth, and external cavity operation. In: Journal of Crystal Growth (Article). DOI:10.1007/978-3-030-12692-6\_9. Link: [https://www.scopus.com/record/display.uri?eid=2-s2.0-85065755077&doi=10.1007%2f978-3-030-12692-6\\_9&origin=inward&txGid=a163a7ae4b0b9a0d9a16ae3ef75d4c55](https://www.scopus.com/record/display.uri?eid=2-s2.0-85065755077&doi=10.1007%2f978-3-030-12692-6_9&origin=inward&txGid=a163a7ae4b0b9a0d9a16ae3ef75d4c55)
- Yarali, E. et al. (2019): Recent Progress in Photonic Processing of Metal-Oxide Transistors. In: Advanced Functional Materials (Review). DOI:10.1117/12.2528698. Link: <https://www.scopus.com/record/display.uri?eid=2-s2.0-85075085193&doi=10.1117%2f12.2528698&origin=inward&txGid=d3308c9e728bae046766553e406a07d1>
- Yi. W. et al. (2019): Performance of Kramers-Kronig Receivers in the Presence of Local Oscillator Relative Intensity Noise. In: Journal of Lightwave Technology (Article). DOI:10.1016/j.vlsi.2019.03.004. Link:
- Yodprasit, U. et al. (2019): A Fully-Integrated 60-GHz Voltage-Controlled Oscillator Synchronized by Optoelectronic Signal. In: 2018 25th IEEE International Conference on Electronics Circuits and Systems, ICECS 2018 (Conference Paper). DOI:10.1109/ICECS.2018.8617905. Link:
- Zamora, V. et al. (2019): Fiber-coupled photonic interconnects based on stacked glass block connectors. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper).
- Zanzi, A. et al. (2019): Alignment tolerant, low voltage, 0.23 V.cm, push-pull silicon photonic switches based on a vertical pn junction. In: Optics Express (Article).
- Zeghuzi, A. et al. (2019): Traveling Wave Analysis of Non-Thermal Far-Field Blooming in High-Power Broad-Area Lasers. In: IEEE Journal of Quantum Electronics (Article).
- Zeghuzi, A. et al. (2019): Time-Dependent Simulation of Thermal Lensing in High-Power Broad-Area Semiconductor Lasers. In: IEEE Journal of Selected Topics in Quantum Electronics (Article).
- Zervos. C. et al. (2019): A new generation of high-speed electro-optical transceivers and flexible bandwidth wavelength selective switches for coherent DCI: The QAMeleon project approach. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper).

**Publications from the Technology Platform “Optoelectronic Systems” of the Research Fab  
Microelectronics Germany (2019)**

- Zink, C. et al. (2019): Investigation of controlled external feedback on the properties of low and high-power frequency-stabilized diode laser. In: Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper).