

Publications from the Technology Platform “Sensor Systems” of the Research Fab Microelectronics Germany (2023)

- Bruckner, S., Kolpak, J., Michler, F., Shanin, N., Schober, R., Hagelauer, A., Weigel, R., Gasner, H., Winkler, J., Eskofier, B.M., Vossiek, M. (2023): A Wireless Joint Communication and Localization EMG-Sensing Concept for Movement Disorder Assessment. In: IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology (Article). DOI:10.1109/JERM.2023.3321974. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0.85174843243&doi=10.1109%2fJERM.2023.3321974&partnerID=40&md5=6bc97640ff05d8671141bdba08326987](https://www.scopus.com/inward/record.uri?eid=2-s2.0.85174843243&doi=10.1109%2fJERM.2023.3321974&partnerID=40&md5=6bc97640ff05d8671141bdba08326987)
- Dumler, D., Wenninger, F. (2023): Automotive Integration of Smart Road Condition Detection System. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387757. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0.85184812435&doi=10.1109%2fSSI58917.2023.10387757&partnerID=40&md5=c2b839cdd3d798f939a31b9249a69d4f](https://www.scopus.com/inward/record.uri?eid=2-s2.0.85184812435&doi=10.1109%2fSSI58917.2023.10387757&partnerID=40&md5=c2b839cdd3d798f939a31b9249a69d4f)
- Stolwijk, J.A., Wallner, S., Heider, J., Kurz, B., Pütz, L., Michaelis, S., Gorcnik, B., Erl, J., Frank, L., Berneburg, M., Haubner, F., Wegener, J., Schreml, S. (2023): GPR4 in the pH-dependent migration of melanoma cells in the tumor microenvironment. In: Experimental Dermatology (Article). DOI:10.1111/exd.14735. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0.85145747775&doi=10.1111%2fexd.14735&partnerID=40&md5=395b40a56bdca080c61bae46356d9288](https://www.scopus.com/inward/record.uri?eid=2-s2.0.85145747775&doi=10.1111%2fexd.14735&partnerID=40&md5=395b40a56bdca080c61bae46356d9288)
- Wirth, Ulrike; Erl, Julia; Azzam, Saphia; Höring, Carina; Skiba, Michael; Singh, Ritu; Hochmuth, Kathrin; Keller, Max; Wegener, Joachim; König, Burkhard (2023): Monitoring the Reversibility of GPCR Signaling by Combining Photochromic Ligands with Label-free Impedance Analysis. In: Angewandte Chemie. International edition (Article). DOI:10.1002/anie.202215547. Link: [J1https://publica.fraunhofer.de/entities/publication/0af134b6-67f6-4917-8ce8-628585522055/details](https://publica.fraunhofer.de/entities/publication/0af134b6-67f6-4917-8ce8-628585522055/details)
- Gerlach, D., Noack, J., Bischof, K., Le Boulch, C., Trupp, S. (2023): Techno-Economic Optimization of Flow Batteries Using the Optimization Potential to Prioritize Different Optimization Possibilities. In: Journal of the Electrochemical Society (Article). DOI:10.1149/1945-7111/acdda0. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0.85163864890&doi=10.1149%2f1945-7111%2facdda0&partnerID=40&md5=b5a3a0d2c72e91230fe5dedd2d6962c2](https://www.scopus.com/inward/record.uri?eid=2-s2.0.85163864890&doi=10.1149%2f1945-7111%2facdda0&partnerID=40&md5=b5a3a0d2c72e91230fe5dedd2d6962c2)
- Bognesi, M., Prosa, M., Toerker, M., Lopez Sanchez, L., Wiczorek, M., Giacomelli, C., Benvenuti, E., Pellacani, P., Elferink, A., Morschhauser, A., Sola, L., Damin, F., Chiari, M., Whatton, M., Haenni, E., Kallweit, D., Marabelli, F., Peters, J., Toffanin, S. (2023): A Fully Integrated Miniaturized Optical Biosensor for Fast and Multiplexing Plasmonic Detection of High- and Low-Molecular-Weight Analytes. In: Advanced Materials (Article). DOI:10.1002/adma.202208719. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0.85158151457&doi=10.1002%2fadm.202208719&partnerID=40&md5=ed2865403020a6b57418508c425d4777](https://www.scopus.com/inward/record.uri?eid=2-s2.0.85158151457&doi=10.1002%2fadm.202208719&partnerID=40&md5=ed2865403020a6b57418508c425d4777)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

- Heibutzki, B., Otto, R., Glaser, M., Hopfner, M., Wuttke, O., Meinig, M., Weis, A., Otto, T., Kuhn, H. (2023): AI-Supported Tree Detection Using Sensor Data Fusion for a Land Surveying Robot. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387963. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184819388&doi=10.1109%2fSSI58917.2023.10387963&partnerID=40&md5=0bd9145050eb0733c2e51640f375dd35](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184819388&doi=10.1109%2fSSI58917.2023.10387963&partnerID=40&md5=0bd9145050eb0733c2e51640f375dd35)
- Schroeder, D., Hedayat, C., Goelden, F., Kuhn, H. (2023): Broadband Far-Field Estimation of a Spherical Dipole Using Near-Field Scanning Data Up to 1 GHz. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387959. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184825704&doi=10.1109%2fSSI58917.2023.10387959&partnerID=40&md5=369dfa5d1028e522aa361951f8032269](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184825704&doi=10.1109%2fSSI58917.2023.10387959&partnerID=40&md5=369dfa5d1028e522aa361951f8032269)
- Herd, T., Streiter, R., Langer, J., Voigt, S., Rothe, T., Kuhn, H. (2023): Cable detection and position estimation in a camera-based drone guidance system for autonomous sensor node attachment on transmission lines. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387949. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184800787&doi=10.1109%2fSSI58917.2023.10387949&partnerID=40&md5=3a648b21ee4fbc1d6c06a13eee47c3a4](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184800787&doi=10.1109%2fSSI58917.2023.10387949&partnerID=40&md5=3a648b21ee4fbc1d6c06a13eee47c3a4)
- Kniely, R., Heilmann, J., Huber, F., Wunderle, B. (2023): Characterization and simulation of delamination on package-level considering sub-critical interfacial fracture-parameters under cyclic loading. In: 2023 24th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, EuroSimE 2023 (Conference Paper). DOI:10.1109/EuroSimE56861.2023.10100778. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85158073556&doi=10.1109%2fEuroSimE56861.2023.10100778&partnerID=40&md5=b0680af4e24887f5cd3099e169529915](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85158073556&doi=10.1109%2fEuroSimE56861.2023.10100778&partnerID=40&md5=b0680af4e24887f5cd3099e169529915)
- Gong, T., Suzuki, Y., Hiller, K., Tanaka, S. (2023): Characterization of plasma-activated, thermally-annealed Si-SiO₂ direct bond strength for vapor HF etching. In: Sensors and Actuators A: Physical (Article). DOI:10.1016/j.sna.2023.114691. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173626493&doi=10.1016%2fj.sna.2023.114691&partnerID=40&md5=c2afcdb34e08768213215d1d1b9fefb3](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173626493&doi=10.1016%2fj.sna.2023.114691&partnerID=40&md5=c2afcdb34e08768213215d1d1b9fefb3)
- Gong, T., Suzuki, Y., Khan, M.J., Hiller, K., Tanaka, S. (2023): Characterization of Vapor HF Sacrificial Etching Through Submicron Release Holes for Wafer-Level Vacuum Packaging Based on Silicon Migration Seal. In: Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS) (Conference Paper). DOI:10.1109/MEMS49605.2023.10052275. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149894996&doi=10.1109%2fMEMS49605.2023.10052275&partnerID=40&md5=9ec12d0bed3f0fdf2c0343244eee9111](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149894996&doi=10.1109%2fMEMS49605.2023.10052275&partnerID=40&md5=9ec12d0bed3f0fdf2c0343244eee9111)
- Walther, D., Johrmann, N., Arnold, J., Wunderle, B. (2023): Development and Evaluation of a Belt Drive Fatigue Tester for Accelerated Thermo-mechanical Stress Testing of Thin Metallic Films on Flexible Substrates. In: 2023 29th International Workshop on Thermal Investigations of ICs and Systems, THERMINIC 2023 (Conference Paper). DOI:10.1109/THERMINIC60375.2023.10325916. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179629192&doi=10.1109%2fTHERMINIC60375.2023.10325916&partnerID=40&md5=5a59238b157083756f47df8d5ea6733e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179629192&doi=10.1109%2fTHERMINIC60375.2023.10325916&partnerID=40&md5=5a59238b157083756f47df8d5ea6733e)
- Forke, R., Shaporin, A., Weidlich, S., Bulz, D., Hiller, K., Kuhn, H. (2023): Efficient Quadrature Suppression for Improved Performance of a MEMS Vibratory Gyroscope. In: INERTIAL 2023 - 10th IEEE International Symposium on Inertial Sensors and Systems, Proceedings (Conference

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

Paper). DOI:10.1109/INERTIAL56358.2023.10103983. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159045775&doi=10.1109%2fINERTIAL56358.2023.10103983&partnerID=40&md5=527280947691e626189fc8d01ac11be6](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159045775&doi=10.1109%2fINERTIAL56358.2023.10103983&partnerID=40&md5=527280947691e626189fc8d01ac11be6)

- Voigt, S., Willert, A., Mende, W., Zschau, T., Oehme, T., Zichner, R. (2023): Environmental friendly and low cost monitoring system for plant and agriculture fields. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387957. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184826152&doi=10.1109%2fSSI58917.2023.10387957&partnerID=40&md5=cd3277455deddbc8d84895bad54f4634](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184826152&doi=10.1109%2fSSI58917.2023.10387957&partnerID=40&md5=cd3277455deddbc8d84895bad54f4634)
- Langenickel, J., Selbmann, F., Meinecke, C.R., Tanneberger, N., Weiss, A., Martin, J., Moebius, M., Roscher, F., Reuter, D., Kuhn, H. (2023): Fabrication and Integration of Quantum Dot Based Emitters for Smart Mechanical Watches. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387764. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184827956&doi=10.1109%2fSSI58917.2023.10387764&partnerID=40&md5=a3698106a10680881ab5e84b3c803dec](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184827956&doi=10.1109%2fSSI58917.2023.10387764&partnerID=40&md5=a3698106a10680881ab5e84b3c803dec)
- Gojdka, B., Cichon, D., Stahl-Offergeld, M., Schroder, D., Clausen, N., Hedayat, C., Hohe, H.-P., Lisec, T. (2023): Fully Integrated Back-Biased 3d Hall Sensor with Wafer-Level Integrated Permanent Micromagnets. In: Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS) (Conference Paper). DOI:10.1109/MEMS49605.2023.10052184. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149880367&doi=10.1109%2fMEMS49605.2023.10052184&partnerID=40&md5=434c3e3af8f6ae6fc9a986c4d3e1fdc2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149880367&doi=10.1109%2fMEMS49605.2023.10052184&partnerID=40&md5=434c3e3af8f6ae6fc9a986c4d3e1fdc2)
- Schlagmann, M., Stoenner, J., Selbmann, F., Hess, S., Otto, T. (2023): Greenhouse Monitoring with Biocompatible Humidity Sensor for Smart Farming. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387759. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184830823&doi=10.1109%2fSSI58917.2023.10387759&partnerID=40&md5=34eea216bda723d9e75ec87713058b03](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184830823&doi=10.1109%2fSSI58917.2023.10387759&partnerID=40&md5=34eea216bda723d9e75ec87713058b03)
- Enderlein, T., Morschhauser, A., Nestler, J., Jobst, G., Stohr, U., Selbmann, F., Otto, T. (2023): Hollow Microneedle Fabrication and Characterization for Interstitial Fluid Extraction in Minimally Invasive Sensors. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387954. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184828764&doi=10.1109%2fSSI58917.2023.10387954&partnerID=40&md5=334d5590a7e0605a1c9d2fa99070627d](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184828764&doi=10.1109%2fSSI58917.2023.10387954&partnerID=40&md5=334d5590a7e0605a1c9d2fa99070627d)
- Mitra, Dana; Mitra, Kalyan Yoti; Thalheim, Robert; Zichner, Ralf (2023): Inkjet-Printed Flexible Thin-Film Thermal Sensors for Detecting Elevated Temperature Range. In: *Physica status solidi. A* (Article). DOI:10.1002/pssa.202300562. Link: [J1https://publica.fraunhofer.de/entities/publication/086a1471-a5d3-4fbd-a831-5a2d6ffd3784/details](https://publica.fraunhofer.de/entities/publication/086a1471-a5d3-4fbd-a831-5a2d6ffd3784/details)
- Kappert, Holger; Schopferer, Sebastian; Saeidi, Nooshin; Döring, Ralf; Ziesche, Steffen; Olowinsky, Alexander; Naumann, Falk; Jägle, Martin; Spanier, Malte; Grabmaier, Anton (2023): Sensor Systems for Extremely Harsh Environments. In: *IMAPSource Proceedings* (Article). DOI:10.4071/001c.89680. Link: [J1https://publica.fraunhofer.de/entities/publication/852ad038-2552-456a-a12a-ad1309ad57f1/details](https://publica.fraunhofer.de/entities/publication/852ad038-2552-456a-a12a-ad1309ad57f1/details)
- Vandavelde, B., Labie, R., Lauwaert, R., Dudek, R., Gromala, P., Eichorst, M. (2023): Strain Measurements and Thermo-Mechanical Simulation of SnAgCu vs. low melting point alloy (LMPA-Q) solder joints. In: 2023 24th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, EuroSimE 2023

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

(Conference Paper). DOI:10.1109/EuroSimE56861.2023.10100841. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85158130982&doi=10.1109%2fEuro-SimE56861.2023.10100841&partnerID=40&md5=ce540948e7976174ca716e47c5edad93>

- Mosca, S., Sowoidnich, K., Mehta, M., Skinner, W.H., Gardner, B., Palombo, F., Stone, N., Matousek, P. (2023): 10 kHz Shifted-Excitation Raman Difference Spectroscopy with Charge-Shifting Charge-Coupled Device Read-Out for Effective Mitigation of Dynamic Interfering Backgrounds. In: Applied Spectroscopy (Article). DOI:10.1177/00037028231167441. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153742175&doi=10.1177%2f00037028231167441&partnerID=40&md5=53172483ae357c7c9cb330e66f104a26>
- Henning, T., Wagner, P., Gedat, E., Kochlik, B., Kusch, P., Sowoidnich, K., Vastag, M., Gleim, J., Braune, M., Maiwald, M., Sumpf, B., Grune, T., Weber, D. (2023): Evaluation of Modern Approaches for the Assessment of Dietary Carotenoids as Markers for Fruit and Vegetable Consumption. In: Nutrients (Article). DOI:10.3390/nu15071665. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152315978&doi=10.3390%2fnu15071665&partnerID=40&md5=48c8ccdbe4875cbb2d4797b099903aed>
- Abend, S., Allard, B., Arnold, A.S., Ban, T., Barry, L., Battelier, B., Bawamia, A., Beaufils, Q., Bernon, S., Bertoldi, A., Bonnin, A., Bouyer, P., Bresson, A., Burrow, O.S., Canuel, B., Desruelle, B., Drougakis, G., Forsberg, R., Gaaloul, N., Gauguet, A., Gersemann, M., Griffin, P.F., Heine, H., Henderson, V.A., Herr, W., Kanthak, S., Krutzik, M., Lachmann, M.D., Lammegger, R., Magnes, W., Miletì, G., Mitchell, M.W., Mottini, S., Papazoglou, D., Pereira Dos Santos, F., Peters, A., Rassel, E., Riis, E., Schubert, C., Seidel, S.T., Tino, G.M., Van Den Bossche, M., Von Klitzing, W., Wicht, A., Witkowski, M., Zahzam, N., Zawada, M. (2023): Technology roadmap for cold-atoms based quantum inertial sensor in space. In: AVS Quantum Science (Article). DOI:10.1116/5.0098119. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150664977&doi=10.1116%2f5.0098119&partnerID=40&md5=94a9bd2f6461d776d7a2a116a1498461>
- Ortiga-Fibla, J., Brunner, F., Treidel, E.B., Garro, N., Hilt, O., Cros, A. (2023): Confocal Micro-Raman Spectroscopy Study of Phonon-Plasmon Modes in GaN Structures for Power Devices. In: 14th Spanish Conference on Electron Devices, CDE 2023 - Proceedings (Conference Paper). DOI:10.1109/CDE58627.2023.10339416. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85182031077&doi=10.1109%2fCDE58627.2023.10339416&partnerID=40&md5=e0bc10990374b197261de0b10f89b33a>
- Nusler, D., Grimm, A., Heinrich, W., Chartier, S., Fischer, G., Friederich, F. (2023): Terahertz technologies for non destructive testing. In: 2023 6th International Workshop on Mobile Terahertz Systems, IWMTS 2023 (Conference Paper). DOI:10.1109/IWMTS58186.2023.10207858. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169437723&doi=10.1109%2fIWMTS58186.2023.10207858&partnerID=40&md5=d0d7b6819230e441f9381183325176a2>
- Maiwald, M., Sowoidnich, K., Sumpf, B. (2023): Pilot Investigations on Solids, Liquids and Gases using a Portable Shifted Excitation Raman Difference Spectroscopy Sensor System. In: Progress in Biomedical Optics and Imaging - Proceedings of SPIE (Conference Paper). DOI:10.1117/12.2649696. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160211410&doi=10.1117%2f12.2649696&partnerID=40&md5=ada1f774157d63b5d07fa82239564bc9>
- vom Bögel, G., Vossiek, M., Wietfeld, C., Haferkamp, M., Häger, S., Sezgin, A., Weimer, M., Thill, R., Sivadevuni, S.S., Böcker, S., Pohl, N., Wessel, J., Braun, T.T., Kögel, T., Geiß, J. (2023): 6GEM Perspective on Joint Communication and Sensing. In: WSA and SCC 2023 - 26th International ITG Workshop on Smart Antennas and 13th Conference on Systems, Communications,

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

and Coding (Conference Paper). DOI: . Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166950253&partnerID=40&md5=8daaebe9da20f44e0cdd5d8432913a5f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166950253&partnerID=40&md5=8daaebe9da20f44e0cdd5d8432913a5f)

- Guha, S., Ahmed, F., Conde, M.H. (2023): A Novel Approach for Solving MPI for Multi-Target ToF Imaging using Subdivision-based Nested Compressed Sensing. In: European Signal Processing Conference (Conference Paper). DOI:10.23919/EUSIPCO58844.2023.10289807. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178364835&doi=10.23919%2fEUSIPCO58844.2023.10289807&partnerID=40&md5=a1adf77199ea9b2ebf659578a0ec4a55](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178364835&doi=10.23919%2fEUSIPCO58844.2023.10289807&partnerID=40&md5=a1adf77199ea9b2ebf659578a0ec4a55)
- Schurwanz, M., Mietzner, J., Herschel, R., Hoehner, P.A. (2023): Compressive Sensing Techniques Applied to a Semi-Circular mmWave MIMO Array. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.23919/IRS57608.2023.10172458. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166265942&doi=10.23919%2fIRS57608.2023.10172458&partnerID=40&md5=ebfae166d7c44c42978eb792c5511860](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166265942&doi=10.23919%2fIRS57608.2023.10172458&partnerID=40&md5=ebfae166d7c44c42978eb792c5511860)
- Arumugam, R.K., Froehly, A., Herschel, R., Wallrath, P., Pohl, N. (2023): Direction of Arrival Estimation on Sparse Arrays Using Compressive Sensing and MUSIC. In: 17th European Conference on Antennas and Propagation, EuCAP 2023 (Conference Paper). DOI:10.23919/EuCAP57121.2023.10133647. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162231122&doi=10.23919%2fEuCAP57121.2023.10133647&partnerID=40&md5=e197039f46eb4e544f9f969d6f2e52be](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162231122&doi=10.23919%2fEuCAP57121.2023.10133647&partnerID=40&md5=e197039f46eb4e544f9f969d6f2e52be)
- Nagesh, S., Anghel, A., Ender, J. (2023): Elevation Profile Estimation for Single Pass Bi-Static SAR Tomography Using Compressed Sensing. In: International Geoscience and Remote Sensing Symposium (IGARSS) (Conference Paper). DOI:10.1109/IGARSS52108.2023.10282952. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178387754&doi=10.1109%2fIGARSS52108.2023.10282952&partnerID=40&md5=e8b47dcd9d0d21427258663d87de8968](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178387754&doi=10.1109%2fIGARSS52108.2023.10282952&partnerID=40&md5=e8b47dcd9d0d21427258663d87de8968)
- Iqbal, M.A., Anghel, A., Datcu, M., Bathelt, A., Sieger, S. (2023): Exploiting Inverse SAR Images and Dual-Pol Decomposition for the Estimation of Tree Scattering Properties. In: International Geoscience and Remote Sensing Symposium (IGARSS) (Conference Paper). DOI:10.1109/IGARSS52108.2023.10283004. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178353483&doi=10.1109%2fIGARSS52108.2023.10283004&partnerID=40&md5=e93d546b71ef7fb2c9c848e813013369](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178353483&doi=10.1109%2fIGARSS52108.2023.10283004&partnerID=40&md5=e93d546b71ef7fb2c9c848e813013369)
- Panhuber, R. (2023): Fast, Efficient, and Viable Compressed Sensing, Low-Rank, and Robust Principle Component Analysis Algorithms for Radar Signal Processing. In: Remote Sensing (Article). DOI:10.3390/rs15082216. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85156177825&doi=10.3390%2frs15082216&partnerID=40&md5=1f8513ca8cd69f60eeca74b82b525768](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85156177825&doi=10.3390%2frs15082216&partnerID=40&md5=1f8513ca8cd69f60eeca74b82b525768)
- Baqué, R., Vignaud, L., Wasik, V., Castet, N., Herschel, R., Cetinkaya, H., Brandes, T. (2023): MIC: Microwave Imaging Curtain for Dynamic and Automatic Detection of Weapons and Explosive Belts. In: Sensors (Article). DOI:10.3390/s23239531. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179139295&doi=10.3390%2fs23239531&partnerID=40&md5=ececdec7cd98e56243def56d248cdd16](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179139295&doi=10.3390%2fs23239531&partnerID=40&md5=ececdec7cd98e56243def56d248cdd16)
- Blazquez-Garcia, R., Cristallini, D., Ummenhofer, M., Seidel, V., Heckenbach, J., O'Hagan, D. (2023): Multichannel Passive Radar Demonstrator Based on Starlink Satellite Signals for Persistent Bistatic SAR Interferometry. In: International Geoscience and Remote Sensing Symposium (IGARSS) (Conference Paper). DOI:10.1109/IGARSS52108.2023.10283270. Link:

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178013050&doi=10.1109%2fL-GARSS52108.2023.10283270&partnerID=40&md5=217139ebd5416e13917442e1197042f4>

- Vogel, Sönke; Täschner, Kerstin; Schepers, Maurice; Weyer, Sara (2023): Multi-Sensor-integrierte adaptive Scheinwerfer für robuste Fahrerassistenzsysteme. In: ATZ-Elektronik (Article). DOI:10.1007/s35658-023-1524-y. Link: J1<https://publica.fraunhofer.de/entities/publication/56ca384d-715b-4ffe-b8f9-bddca5a96e13/details>
- Philipp, D., Stoja, E., Konstandin, S., Bertuch, T., Müller, J., Schmidt, M.V., Günther, M. (2023): On the design, control, and AI-driven optimization of reconfigurable metamaterials for Magnetic Resonance Imaging. In: International Conference on Metamaterials, Photonic Crystals and Plasmonics (Conference Paper). DOI: . Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174569080&partnerID=40&md5=68a294e2dcef2d58231326198e4324be>
- Guha, S., Bathelt, A., Conde, M.H., Ender, J. (2023): Radar Band Fusion Using Frame-Based Compressed Sensing. In: IEEE Journal on Selected Topics in Signal Processing (Article). DOI:10.1109/JSTSP.2022.3220403. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85141549696&doi=10.1109%2fJSTSP.2022.3220403&partnerID=40&md5=8bfd61db16f623c29d496e3d50195cbe>
- Bathelt, A., Thill, R. (2023): Radar-sensing based on non-contiguous OFDM signals using Compressed Sensing. In: 20th European Radar Conference, EuRAD 2023 (Conference Paper). DOI:10.23919/EuRAD58043.2023.10289155. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172377260&doi=10.23919%2fEuRAD58043.2023.10289155&partnerID=40&md5=0ac910541cbc7991fb743d802c459811>
- Lavau, L.C., Suhrke, M., Knott, P. (2023): Securing Temperature Measurements: An Assessment of Sensors' Vulnerability to IEMI. In: IEEE International Symposium on Electromagnetic Compatibility (Conference Paper). DOI:10.1109/EMCEurope57790.2023.10274337. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174625077&doi=10.1109%2fEMCEurope57790.2023.10274337&partnerID=40&md5=69276515d4e970cd56db819b5c2dfe37>
- Nusler, D., Grimm, A., Heinrich, W., Chartier, S., Fischer, G., Friederich, F. (2023): Terahertz technologies for non destructive testing. In: 2023 6th International Workshop on Mobile Terahertz Systems, IWMTS 2023 (Conference Paper). DOI:10.1109/IWMTS58186.2023.10207858. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169437723&doi=10.1109%2fIWMTS58186.2023.10207858&partnerID=40&md5=d0d7b6819230e441f9381183325176a2>
- Günther, M., Stoja, E., Konstandin, S., Bertuch, T., Müller, J., Philipp, D. (2023): The benefit of reconfigurable metamaterials in Magnetic Resonance Imaging. In: International Conference on Metamaterials, Photonic Crystals and Plasmonics (Conference Paper). DOI: . Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174591373&partnerID=40&md5=e7c7ba83a7e2206f37480aa335e9f4e5>
- Abdalwareth, A., Flachenecker, G., Angelmahr, M., Schade, W. (2023): Optical fiber evanescent hydrogen sensor based on palladium nanoparticles coated Bragg gratings. In: Sensors and Actuators A: Physical (Article). DOI:10.1016/j.sna.2023.114594. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168426517&doi=10.1016%2fj.sna.2023.114594&partnerID=40&md5=391da772f71b984cc332dcb6dced0035>
- Willenberg, B., Phillips, C.R., Pupekis, J., Camenzind, S.L., Liebermeister, L., Kohlhaas, R.B., Globisch, B., Keller, U. (2023): THz time-domain spectroscopy with a GHz single-cavity dual-comb laser. In: 2023 Conference on Lasers and Electro-Optics Europe and European Quantum Electronics Conference, CLEO/Europe-EQEC 2023 (Conference Paper). DOI:10.1109/CLEO/EUROPE-EQEC57999.2023.10231454. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0->

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

85175706008&doi=10.1109%2fCLEO%2fEUROPE-EQEC57999.2023.10231454&part-
nerID=40&md5=63b900e782c61c9e5a7e59d82950c224

- Reck, J., Kleinert, M., Mihov, K., Kresse, M., Yilmaz, C., Hoffmann, C., Hoffmann, P., Froese, V., Kertzscher, U., Mykhailiuk, K., Michaelis, J., Weigel, W., Scholand, S., Heupke, H.-J., Weigel, M., De Felipe, D., Qian, T., Conradi, H., Zawadzki, C., Keil, N., Schell, M. (2023): Eight-channel SiNx microring-resonator based photonic biosensor for label-free fluid analysis in the optical C-band. In: Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS (Conference Paper). DOI:10.1109/EMBC40787.2023.10340677. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179644864&doi=10.1109%2fEMBC40787.2023.10340677&partnerID=40&md5=bb965427ba14b929ae5253ab338b0f17](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179644864&doi=10.1109%2fEMBC40787.2023.10340677&partnerID=40&md5=bb965427ba14b929ae5253ab338b0f17)
- Fink, J., Cavalcante, R.L.G., Utkovski, Z., Stanczak, S. (2023): Deep-Unfolded Adaptive Projected Subgradient Method For Mimo Detection. In: ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings (Conference Paper). DOI:10.1109/ICASSP49357.2023.10096706. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180604743&doi=10.1109%2fICASSP49357.2023.10096706&partnerID=40&md5=46f0e96d469414217c7de1bda822795e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180604743&doi=10.1109%2fICASSP49357.2023.10096706&partnerID=40&md5=46f0e96d469414217c7de1bda822795e)
- Agrawal, N., Cavalcante, R.L.G., Stanczak, S. (2023): Dynamic Distributed Convex Optimization "Over-The-Air" In Decentralized Wireless Networks. In: ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings (Conference Paper). DOI:10.1109/ICASSP49357.2023.10096916. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168158965&doi=10.1109%2fICASSP49357.2023.10096916&partnerID=40&md5=04e14613e06cefe4afe0a7903e3ee618](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168158965&doi=10.1109%2fICASSP49357.2023.10096916&partnerID=40&md5=04e14613e06cefe4afe0a7903e3ee618)
- Kreuzer, L.C., Brix, F., Duchting, P., Brenner, C., Deumer, M., Kohlhaas, R., Kramer, U., Hoffmann, M.R. (2023): Terahertz-Based Heavy Metal Detection in plants - A first approach. In: 2023 6th International Workshop on Mobile Terahertz Systems, IWMTS 2023 (Conference Paper). DOI:10.1109/IWMTS58186.2023.10207784. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169462144&doi=10.1109%2fIWMTS58186.2023.10207784&partnerID=40&md5=98a54365dc6af865bd380629b3b91d72](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169462144&doi=10.1109%2fIWMTS58186.2023.10207784&partnerID=40&md5=98a54365dc6af865bd380629b3b91d72)
- Yang, J., Liu, Y., Guan, K., Schmieder, M., Fei, D., Peter, M., Keusgen, W., Wang, N., Wang, Y., Ai, B. (2023): Quasi-Deterministic Modeling for Industrial IoT Channels Based on Millimeter Wave Measurements. In: IEEE Internet of Things Journal (Article). DOI:10.1109/JIOT.2023.3319048. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172989585&doi=10.1109%2fJIOT.2023.3319048&partnerID=40&md5=7533bf6128e1f6d452e55e0ee0e66e81](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172989585&doi=10.1109%2fJIOT.2023.3319048&partnerID=40&md5=7533bf6128e1f6d452e55e0ee0e66e81)
- Balef, A.R., Maghsudi, S. (2023): Piecewise-Stationary Multi-Objective Multi-Armed Bandit With Application to Joint Communications and Sensing. In: IEEE Wireless Communications Letters (Article). DOI:10.1109/LWC.2023.3244686. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149418364&doi=10.1109%2fLWC.2023.3244686&partnerID=40&md5=9e58dcfab14764cbb8dc8bc76924730a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149418364&doi=10.1109%2fLWC.2023.3244686&partnerID=40&md5=9e58dcfab14764cbb8dc8bc76924730a)
- Gholipour, J., Bober, K.L., Hinrichs, M., Jungnickel, V. (2023): Compressed Sensing for Feedback Generation in OFDM Based LiFi Systems. In: IEEE Wireless Communications and Networking Conference, WCNC (Conference Paper). DOI:10.1109/WCNC55385.2023.10118619. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159789189&doi=10.1109%2fWCNC55385.2023.10118619&partnerID=40&md5=c480b97267ebe61c618a47d099318a17](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159789189&doi=10.1109%2fWCNC55385.2023.10118619&partnerID=40&md5=c480b97267ebe61c618a47d099318a17)
- Koch, J., Droste, A., Angelmahr, M., Flachenecker, G., Schade, W. (2023): 3D shape-sensor based on integrated optics in ultra-thin glass. In: Proceedings of SPIE - The International Society

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

for Optical Engineering (Conference Paper). DOI:10.1117/12.2650357. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159789935&doi=10.1117%2f12.2650357&partnerID=40&md5=76cb13aa392f51eae80fd688f9bc4b98>

- Wisotzky, E.L., Triller, J., Kossack, B., Hilsmann, A., Globke, B., Arens, P., Eisert, P. (2023): From Multispectral-Stereo to Intraoperative Hyperspectral Imaging: a Feasibility Study. In: Current Directions in Biomedical Engineering (Conference Paper). DOI:10.1515/cdbme-2023-1078. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173190786&doi=10.1515%2fcdbme-2023-1078&partnerID=40&md5=110707764fa98c0b23f1f5f06774e919>
- Wisotzky, E.L., Eisert, P., Hilsmann, A. (2023): 3D Hyperspectral Light-Field Imaging: A first intraoperative implementation. In: Current Directions in Biomedical Engineering (Conference Paper). DOI:10.1515/cdbme-2023-1153. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173580872&doi=10.1515%2fcdbme-2023-1153&partnerID=40&md5=ccdb5f8bbafc151ff9e41ff4c7f3471d>
- Kottke, C., Ma, Z., Kouhini, S.M., Jungnickel, V. (2023): In-building Optical Wireless Positioning Using Time of Flight. In: 2023 Optical Fiber Communications Conference and Exhibition, OFC 2023 - Proceedings (Conference Paper). DOI:10.23919/OFC49934.2023.10117339. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161303756&doi=10.23919%2fOFC49934.2023.10117339&partnerID=40&md5=3e06109e01b647abb160738154842aa3>
- Chojecki, P., Strazdas, D., Przewozny, D., Gard, N., Runde, D., Hoerner, N., Al-Hamadi, A., Eisert, P., Bosse, S. (2023): Assessing the Value of Multimodal Interfaces: A Study on Human-Machine Interaction in Weld Inspection Workstations. In: Sensors (Article). DOI:10.3390/s23115043. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161500803&doi=10.3390%2fs23115043&partnerID=40&md5=9b824226d6c5ad4f1466052106e3f09e>
- Hoog Antink, C., Schulz, R., Rohr, M., Wenzel, K., Liebermeister, L., Kohlhaas, R., Preu, S. (2023): Estimating Thoracic Movement with High-Sampling Rate THz Technology. In: Sensors (Article). DOI:10.3390/s23115233. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161610751&doi=10.3390%2fs23115233&partnerID=40&md5=9a6d309126a82ed031a2d7be7ff5aac2>
- Kovalenko, M., Przewozny, D., Eisert, P., Bosse, S., Chojecki, P. (2023): Data Fusion for Cross-Domain Real-Time Object Detection on the Edge. In: Sensors (Article). DOI:10.3390/s23136138. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164845473&doi=10.3390%2fs23136138&partnerID=40&md5=00cdc911356a71bfc70da6697dddd772>
- Philipp, Simon; Feuerhelm, Marvin; Durmaz, Ali Riza; Straub, Thomas; Mathes, Niklas; Vidal, Xavier; Deldar, Shayan; Soldatov, Ivan; Schäfer, Ridaolf (2023): A6.4 - Diamond-based magnetic widefield-microscopy of domain patterns in electric steel. In: SMSI 2023, Sensor and Measurement Science International (Conference Paper). DOI:10.5162/SMSI2023/A6.4. Link: <https://publica.fraunhofer.de/entities/publication/fe39a658-2515-477d-a064-b009331da8d4/details>
- Lebedev, V., Engels, J., Luo, T., Kustermann, J., Weippert, J., Giese, C., Kirste, L., Quellmalz, P., Jeske, J., Cimalla, V., Knittel, P. (2023): Epitaxial Lateral Overgrowth of Wafer-Scale Heteroepitaxial Diamond for Quantum Applications. In: Physica Status Solidi (A) Applications and Materials

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

Science (Article). DOI:10.1002/pssa.202300325. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85177224534&doi=10.1002%2fpssa.202300325&partnerID=40&md5=d3fa95acdf90cc6a321a9aecf86a8c08](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85177224534&doi=10.1002%2fpssa.202300325&partnerID=40&md5=d3fa95acdf90cc6a321a9aecf86a8c08)

- Giese, C., Quellmalz, P., Knittel, P., Luo, T., Mathes, N., Jeske, J., Reinke, P., Yang, Q. (2023): Fabrication of Nitrogen Vacancy Center-Doped Free-Standing Diamond Photonic Devices via Faraday Cage-Angled Etching. In: *Physica Status Solidi (A) Applications and Materials Science (Article)*. DOI:10.1002/pssa.202300433. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85175571106&doi=10.1002%2fpssa.202300433&partnerID=40&md5=5591a2777e1dfdce3f9183ba13b65176](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85175571106&doi=10.1002%2fpssa.202300433&partnerID=40&md5=5591a2777e1dfdce3f9183ba13b65176)
- Bruckmaier, F., Allert, R.D., Neuling, N.R., Amrein, P., Littin, S., Briegel, K.D., Schatzle, P., Knittel, P., Zaitsev, M., Bucher, D.B. (2023): Imaging local diffusion in microstructures using NV-based pulsed field gradient NMR. In: *Science Advances (Article)*. DOI:10.1126/sciadv.adh3484. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85167598500&doi=10.1126%2fsciadv.adh3484&partnerID=40&md5=5e4d7108014c6124a2be04492085a0a8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85167598500&doi=10.1126%2fsciadv.adh3484&partnerID=40&md5=5e4d7108014c6124a2be04492085a0a8)
- Mathes, N., Comas, M., Bleul, R., Everaert, K., Hermle, T., Wiekhorst, F., Knittel, P., Sperling, R.A., Vidal, X. (2023): Nitrogen-vacancy center magnetic imaging of Fe₃O₄ nanoparticles inside the gastrointestinal tract of *Drosophila melanogaster*. In: *Nanoscale Advances (Article)*. DOI:10.1039/d3na00684k. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179161604&doi=10.1039%2fd3na00684k&partnerID=40&md5=28858c857f01af29b4504bdc52391ffe](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179161604&doi=10.1039%2fd3na00684k&partnerID=40&md5=28858c857f01af29b4504bdc52391ffe)
- Flores, Y.V., Polak, A., Jambet, J., Stothard, D., Haertelt, M. (2023): Point of Interest Mid-Infrared Spectroscopy for Inline Pharmaceutical Packaging Quality Control. In: *IEEE Sensors Journal (Article)*. DOI:10.1109/JSEN.2023.3281972. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161485125&doi=10.1109%2fJSEN.2023.3281972&partnerID=40&md5=5b4055e35f7e9585871c3def513b90f8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161485125&doi=10.1109%2fJSEN.2023.3281972&partnerID=40&md5=5b4055e35f7e9585871c3def513b90f8)
- Wyderka, N., Ketterer, A. (2023): Probing the Geometry of Correlation Matrices with Randomized Measurements. In: *PRX Quantum (Article)*. DOI:10.1103/PRXQuantum.4.020325. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162159626&doi=10.1103%2fPRXQuantum.4.020325&partnerID=40&md5=35dba685bfd3691aee939f74e99e1dd9](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162159626&doi=10.1103%2fPRXQuantum.4.020325&partnerID=40&md5=35dba685bfd3691aee939f74e99e1dd9)
- Ohnemus, S., Breuer, H.-P., Ketterer, A. (2023): Quantifying multiparticle entanglement with randomized measurements. In: *Physical Review A (Article)*. DOI:10.1103/PhysRevA.107.042406. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152801201&doi=10.1103%2fPhysRevA.107.042406&partnerID=40&md5=477ab86efaac3f57f4b28b68ab76138c](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152801201&doi=10.1103%2fPhysRevA.107.042406&partnerID=40&md5=477ab86efaac3f57f4b28b68ab76138c)
- Chemin, A., Levine, I., Rusu, M., Vaujour, R., Knittel, P., Reinke, P., Hinrichs, K., Unold, T., Ditrach, T., Petit, T. (2023): Surface-Mediated Charge Transfer of Photogenerated Carriers in Diamond. In: *Small Methods (Article)*. DOI:10.1002/smt.202300423. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168379177&doi=10.1002%2fsmt.202300423&partnerID=40&md5=26182f8a2cecf1fa0c4fe42817696a6c](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168379177&doi=10.1002%2fsmt.202300423&partnerID=40&md5=26182f8a2cecf1fa0c4fe42817696a6c)
- Nusler, D., Grimm, A., Heinrich, W., Chartier, S., Fischer, G., Friederich, F. (2023): Terahertz technologies for non destructive testing. In: *2023 6th International Workshop on Mobile Terahertz Systems, IWMTS 2023 (Conference Paper)*. DOI:10.1109/IWMTS58186.2023.10207858. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169437723&doi=10.1109%2fIWMTS58186.2023.10207858&partnerID=40&md5=d0d7b6819230e441f9381183325176a2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169437723&doi=10.1109%2fIWMTS58186.2023.10207858&partnerID=40&md5=d0d7b6819230e441f9381183325176a2)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

- Mönch, S., Reiner, R., Basler, M., Grieshaber, D., Benkhelifa, F., Waltereit, P., Quay, R. (2023): Three-Phase Motor Inverter and Current Sensing GaN Power IC. In: Sensors (Article). DOI:10.3390/s23146512. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166027997&doi=10.3390%2fs23146512&partnerID=40&md5=24121ce1c124f6767f423a6e2e395c6f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166027997&doi=10.3390%2fs23146512&partnerID=40&md5=24121ce1c124f6767f423a6e2e395c6f)
- Krause, S., Quay, R. (2023): X-Band 100-W High-Voltage GaN Internally Matched FET with Low Gain Compression. In: International Geoscience and Remote Sensing Symposium (IGARSS) (Conference Paper). DOI:10.1109/IGARSS52108.2023.10282801. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178338579&doi=10.1109%2fIGARSS52108.2023.10282801&partnerID=40&md5=9040956a46b47c1144cec68c08615e52](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178338579&doi=10.1109%2fIGARSS52108.2023.10282801&partnerID=40&md5=9040956a46b47c1144cec68c08615e52)
- Nusler, D., Grimm, A., Heinrich, W., Chartier, S., Fischer, G., Friederich, F. (2023): Terahertz technologies for non destructive testing. In: 2023 6th International Workshop on Mobile Terahertz Systems, IWMTS 2023 (Conference Paper). DOI:10.1109/IWMTS58186.2023.10207858. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169437723&doi=10.1109%2fIWMTS58186.2023.10207858&partnerID=40&md5=d0d7b6819230e441f9381183325176a2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169437723&doi=10.1109%2fIWMTS58186.2023.10207858&partnerID=40&md5=d0d7b6819230e441f9381183325176a2)
- Srivastava, S., Terai, Y., Liu, J., Capellini, G., Xie, Y.-H. (2023): Controlling the Nucleation and Growth of Salt from Bodily Fluid for Enhanced Biosensing Applications. In: Biosensors (Article). DOI:10.3390/bios13121016. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180673067&doi=10.3390%2fbios13121016&partnerID=40&md5=5e70fe042e255622a45e0646ee12553a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180673067&doi=10.3390%2fbios13121016&partnerID=40&md5=5e70fe042e255622a45e0646ee12553a)
- Zhao, Y., Sark, V., Krstic, M., Grass, E. (2023): Gesture Recognition Using Multiple mmWave FMCW Radars. In: IEEE Vehicular Technology Conference (Conference Paper). DOI:10.1109/VTC2023-Fall60731.2023.10333652. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85181169629&doi=10.1109%2fVTC2023-Fall60731.2023.10333652&partnerID=40&md5=16c9208777cef2cd0fce8f0cbc88dfc9](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85181169629&doi=10.1109%2fVTC2023-Fall60731.2023.10333652&partnerID=40&md5=16c9208777cef2cd0fce8f0cbc88dfc9)
- Esfahani, A.H., Maye, O., Frohberg, M., Speh, M., Jobges, M., Langendorfer, P. (2023): Machine Learning based Real Time Detection of Freezing of Gait of Parkinson Patients Running on a Body Worn Device. In: Proceedings - 2023 IEEE/ACM International Conference on Connected Health: Applications, Systems and Engineering Technologies, CHASE 2023 (Conference Paper). DOI:10.1145/3580252.3589423. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85167453964&doi=10.1145%2f3580252.3589423&partnerID=40&md5=9d3348714ea0c143d2f9e82a2def4de1](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85167453964&doi=10.1145%2f3580252.3589423&partnerID=40&md5=9d3348714ea0c143d2f9e82a2def4de1)
- Zhao, Y., Wimmer, L., Sark, V., Krstic, M., Grass, E. (2023): Instantaneous 3D velocity estimation using coordinated OFDM Radar nodes. In: Proceedings International Radar Symposium (Conference Paper). DOI:10.23919/IRS57608.2023.10172411. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166248720&doi=10.23919%2fIRS57608.2023.10172411&partnerID=40&md5=3a47a769cbdd72784f0c5ebbc3213e05](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166248720&doi=10.23919%2fIRS57608.2023.10172411&partnerID=40&md5=3a47a769cbdd72784f0c5ebbc3213e05)
- Zhao, Y., Sark, V., Krstic, M., Grass, E. (2023): Instantaneous Velocity Estimation of Multiple Targets using Coordinated OFDM RADAR Nodes. In: Proceedings of 2023 Workshop on Microwave Theory and Technology in Wireless Communications, MTTW 2023 (Conference Paper). DOI:10.1109/MTTW59774.2023.10320053. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179555907&doi=10.1109%2fMTTW59774.2023.10320053&partnerID=40&md5=e60bf457066d77039c50c59c1723eba1](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179555907&doi=10.1109%2fMTTW59774.2023.10320053&partnerID=40&md5=e60bf457066d77039c50c59c1723eba1)
- Assafo, M., Städter, J.P., Meisel, T., Langendorfer, P. (2023): On the Stability and Homogeneous Ensemble of Feature Selection for Predictive Maintenance: A Classification Application for Tool Condition Monitoring in Milling. In: Sensors (Article). DOI:10.3390/s23094461. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

85159157438&doi=10.3390%2fs23094461&part-
nerID=40&md5=e66927564c3845db5e7b5a9eff5e12e4

- Zhao, Y., Sark, V., Krstic, M., Grass, E. (2023): Low Complexity Radar Gesture Recognition Using Synthetic Training Data. In: Sensors (Article). DOI:10.3390/s23010308. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145970765&doi=10.3390%2fs23010308&partnerID=40&md5=3e7b20c779ec3417e45191b1cb1819a9](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145970765&doi=10.3390%2fs23010308&partnerID=40&md5=3e7b20c779ec3417e45191b1cb1819a9)
- Claussen, J., Wittenberg, T., Uhlmann, N., Gerth, S. (2023): “Chamber #8” – a holistic approach of high-throughput non-destructive assessment of plant roots. In: Frontiers in Plant Science (Article). DOI:10.3389/fpls.2023.1269005. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85182408540&doi=10.3389%2ffpls.2023.1269005&partnerID=40&md5=37208b5cd8c7efec145e8929b0a13e21](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85182408540&doi=10.3389%2ffpls.2023.1269005&partnerID=40&md5=37208b5cd8c7efec145e8929b0a13e21)
- Alle, J., Gruber, R., Wörlein, N., Uhlmann, N., Claußen, J., Wittenberg, T., Gerth, S. (2023): 3D segmentation of plant root systems using spatial pyramid pooling and locally adaptive field-of-view inference. In: Frontiers in Plant Science (Article). DOI:10.3389/fpls.2023.1120189. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153479441&doi=10.3389%2ffpls.2023.1120189&partnerID=40&md5=a45509726feb8b28229d49c54d201cc0](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153479441&doi=10.3389%2ffpls.2023.1120189&partnerID=40&md5=a45509726feb8b28229d49c54d201cc0)
- Ben Halima, H., Bellagambi, F.G., Hangouët, M., Alcacer, A., Pfeiffer, N., Heuberger, A., Zine, N., Bausells, J., Elaissari, A., Errachid, A. (2023): A novel electrochemical strategy for NT-proBNP detection using IMFET for monitoring heart failure by saliva analysis. In: Talanta (Article). DOI:10.1016/j.talanta.2022.123759. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135717371&doi=10.1016%2ftalanta.2022.123759&partnerID=40&md5=a2407bf9fa08b7cb5fd9fb7dd493c059](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135717371&doi=10.1016%2ftalanta.2022.123759&partnerID=40&md5=a2407bf9fa08b7cb5fd9fb7dd493c059)
- Ben Halima, H., Bellagambi, F.G., Hangouët, M., Alcacer, A., Pfeiffer, N., Heuberger, A., Zine, N., Bausells, J., Errachid, A. (2023): A Novel IMFET Biosensor Strategy for Interleukin-10 Quantification for Early Screening Heart Failure Disease in Saliva. In: Electroanalysis (Article). DOI:10.1002/elan.202200141. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135815241&doi=10.1002%2felan.202200141&partnerID=40&md5=afa138076eaaef-bfcaa093c287b300a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135815241&doi=10.1002%2felan.202200141&partnerID=40&md5=afa138076eaaef-bfcaa093c287b300a)
- Boudries, Dahmane;Massot, Philippe;Parzy, Elodie;Seren, Seda;Mellet, Philippe;Franconi, Jean Michel;Miraux, Sylvain;Bezançon, Eric;Marque, Sylvain R.A.;Audran, Gérard;Muetzel, Markus;Wintzheimer, Stefan;Fidler, Florian;Thiaudière, Eric (2023): A system for in vivo on-demand ultra-low field Overhauser-enhanced 3D-Magnetic resonance imaging. In: Journal of magnetic resonance imaging (Article). DOI:10.1016/j.jmr.2023.107383. Link: [J1https://publica.fraunhofer.de/entities/publication/ccbcfb8b-ca13-435b-869d-aaf73b39fe11/details](https://publica.fraunhofer.de/entities/publication/ccbcfb8b-ca13-435b-869d-aaf73b39fe11/details)
- Michen, M., Rehak, M., Haßler, U. (2023): Active deep learning for segmentation of industrial CT data [Active Deep Learning für die Segmentierung von industriellen CT-Daten]. In: Technisches Messen (Article). DOI:10.1515/teme-2023-0047. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162856467&doi=10.1515%2feme-2023-0047&partnerID=40&md5=cdb6454a40eba971f10e325f2242fa62](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162856467&doi=10.1515%2feme-2023-0047&partnerID=40&md5=cdb6454a40eba971f10e325f2242fa62)
- Borges de Oliveira, Fabrício;Reuter, Tamara;Plotzki, David;Wohlgemuth, Florian;Batscher, Markus;Bellon, Carsten;Kasperl, Stefan (2023): Assessment of 2D-based tests for the qualification of simulation software for dXCT. In: Measurement Science and Technology (Article). DOI:10.1088/1361-6501/acc1f9. Link: [J1https://publica.fraunhofer.de/entities/publication/3ce0709a-9118-4ca9-a2c5-b4ec5903a7fd/details](https://publica.fraunhofer.de/entities/publication/3ce0709a-9118-4ca9-a2c5-b4ec5903a7fd/details)
- Ibrahim, A.A., Adler, W., Gaßner, H., Rothhammer, V., Kluge, F., Eskofier, B.M. (2023): Association between cognition and gait in multiple sclerosis: A smartphone-based longitudinal analysis.

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

In: International Journal of Medical Informatics (Article). DOI:10.1016/j.ijmedinf.2023.105145.
Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165232903&doi=10.1016%2fj.ijmedinf.2023.105145&partnerID=40&md5=26d2a708006718e841da95db34f710b7](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165232903&doi=10.1016%2fj.ijmedinf.2023.105145&partnerID=40&md5=26d2a708006718e841da95db34f710b7)

- Gnepper, Oliver;Enge-Rosenblatt, Olaf (2023): Breitband-Monitoring für die Schadensidentifikation von Axialkolbenpumpen. In: 31. VDI-Fachtagung Technische Zuverlässigkeit 2023. Entwicklung und Betrieb zuverlässiger Produkte (Conference Paper). DOI:10.51202/9783181024096-231. Link: [J1https://publica.fraunhofer.de/entities/publication/1d47a15f-2a19-43b7-bd92-0e9a130753af/details](https://publica.fraunhofer.de/entities/publication/1d47a15f-2a19-43b7-bd92-0e9a130753af/details)
- Gnepper, O. (2023): Broadband monitoring for damage identification of axial piston pumps [Breitband-Monitoring für die Schadensidentifikation von Axialkolbenpumpen]. In: VDI Berichte (Article). DOI:. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85175153767&partnerID=40&md5=6fd34de8375db8eeb29fa92ee7104964](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85175153767&partnerID=40&md5=6fd34de8375db8eeb29fa92ee7104964)
- Straub, T., Fell, J., Zabler, S., Gustmann, T., Korn, H., Fischer, S.C.L. (2023): Characterization of Filigree Additively Manufactured NiTi Structures Using Micro Tomography and Micromechanical Testing for Metamaterial Material Models. In: Materials (Article). DOI:10.3390/ma16020676. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146602733&doi=10.3390%2fma16020676&partnerID=40&md5=5b04ea380d226a0f86b1b02fb04f31df](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146602733&doi=10.3390%2fma16020676&partnerID=40&md5=5b04ea380d226a0f86b1b02fb04f31df)
- Huang, C., Eckstädt, E. (2023): Comparison of different coupling variants for building and HVAC simulation. In: Journal of Physics: Conference Series (Conference Paper). DOI:10.1088/1742-6596/2600/7/072005. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180152550&doi=10.1088%2f1742-6596%2f2600%2f7%2f072005&partnerID=40&md5=6e41a5963746163f9970d9aceef83200](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180152550&doi=10.1088%2f1742-6596%2f2600%2f7%2f072005&partnerID=40&md5=6e41a5963746163f9970d9aceef83200)
- Pfalz, T., Rota, A., Saeidnezhad, N., Leyens, C. (2023): Comparison of different multi-laser powder bed fusion exposure strategies and their influence on the part quality of IN718. In: International Journal of Advanced Manufacturing Technology (Article). DOI:10.1007/s00170-023-12194-3. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169163457&doi=10.1007%2fs00170-023-12194-3&partnerID=40&md5=7a874cc9d8a25ec3e76d2805a880b9d0](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169163457&doi=10.1007%2fs00170-023-12194-3&partnerID=40&md5=7a874cc9d8a25ec3e76d2805a880b9d0)
- Merwe, J. Rossouw van der;Cortes Vidal, Inigo;Saad, Muhammad;Garzia, Fabio;Rügamer, Alexander;Overbeck, Matthias;Felber, Wolfgang (2023): Comparison of interference mitigation with adaptive notch filter architectures against privacy protection devices. In: IEEE/ION Position, Location and Navigation Symposium, PLANS 2023 (Conference Paper). DOI:10.1109/PLANS53410.2023.10140017. Link: [J1https://publica.fraunhofer.de/entities/publication/d49444c0-0d9f-42ba-8685-2520601f40e5/details](https://publica.fraunhofer.de/entities/publication/d49444c0-0d9f-42ba-8685-2520601f40e5/details)
- Bräunlich, N., Wagner, C.W., Sachs, J., Del Galdo, G. (2023): Configurable Pseudo Noise Radar Imaging System Enabling Synchronous MIMO Channel Extension. In: Sensors (Article). DOI:10.3390/s23052454. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149650257&doi=10.3390%2fs23052454&partnerID=40&md5=c71d87aed040379d0f2a33daaff68f35](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149650257&doi=10.3390%2fs23052454&partnerID=40&md5=c71d87aed040379d0f2a33daaff68f35)
- Shoushtari, H., Harder, D., Kasperek, M., Schäfer, M., Müller-Lietzkow, J., Sternberg, H. (2023): Data-Driven Inertial Navigation assisted by 5G UL-TDoA Positioning. In: Proceedings of the International Technical Meeting of The Institute of Navigation, ITM (Conference Paper). DOI:10.33012/2023/18554. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168549075&doi=10.33012%2f2023%2f18554&partnerID=40&md5=df49517162cb5d60873977df96ac3f48](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168549075&doi=10.33012%2f2023%2f18554&partnerID=40&md5=df49517162cb5d60873977df96ac3f48)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

- Weber, Peter-Karl;Santos, Pedro;Rentschler, Lisa;Fuchs, Theobald;Bauer, Maris;Friederich, Fabian;Jelen, Erich;Drezen, Erell Le;Rauch, Thomas;Jelito, Vanessa;Erdogmus, Cansel;Humanicka, Wiktorja (2023): Digital Twins, Damage Detection and Material Analysis. In: Fraunhofer Technologies for Heritage Protection in Times of Climate Change and Digitization (Book Chapter). DOI: Link: [J1https://publica.fraunhofer.de/entities/publication/ec0fa3ad-e63a-488e-9136-7231fe4893f0/details](https://publica.fraunhofer.de/entities/publication/ec0fa3ad-e63a-488e-9136-7231fe4893f0/details)
- Gedschold, J., Semper, S., Thoma, R.S., Dobereiner, M., Galdo, G.D. (2023): Dynamic Delay-Dispersive UWB-Radar Targets: Modeling and Estimation. In: IEEE Transactions on Antennas and Propagation (Article). DOI:10.1109/TAP.2023.3287672. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164707121&doi=10.1109%2fTAP.2023.3287672&partnerID=40&md5=2f031583ece570d1038cb4c1fa8e3264](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164707121&doi=10.1109%2fTAP.2023.3287672&partnerID=40&md5=2f031583ece570d1038cb4c1fa8e3264)
- Rasp, F., Eberlein, E., Perner, B., Roth-Mandutz, E., Hipp, S. (2023): Enhanced 5G Sidelink Ranging Based on Carrier Aggregation. In: Proceedings of the 2023 13th International Conference on Indoor Positioning and Indoor Navigation, IPIN 2023 (Conference Paper). DOI:10.1109/IPIN57070.2023.10332548. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180795309&doi=10.1109%2fIPIN57070.2023.10332548&partnerID=40&md5=5c913311cee3def37168fe4a1309e493](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180795309&doi=10.1109%2fIPIN57070.2023.10332548&partnerID=40&md5=5c913311cee3def37168fe4a1309e493)
- Cortés, I., van der Merwe, J.R., Lohan, E.S., Nurmi, J., Felber, W. (2023): Evaluation of Low-Complexity Adaptive Full Direct-State Kalman Filter for Robust GNSS Tracking t. In: Sensors (Article). DOI:10.3390/s23073658. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152307351&doi=10.3390%2fs23073658&partnerID=40&md5=bf024547c15621a0cc485cd059b5c5f3](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152307351&doi=10.3390%2fs23073658&partnerID=40&md5=bf024547c15621a0cc485cd059b5c5f3)
- Ullrich, M., Roth, N., Kuderle, A., Richer, R., Gladow, T., Gasner, H., Marxreiter, F., Klucken, J., Eskofier, B.M., Kluge, F. (2023): Fall Risk Prediction in Parkinson's Disease Using Real-World Inertial Sensor Gait Data. In: IEEE Journal of Biomedical and Health Informatics (Article). DOI:10.1109/JBHI.2022.3215921. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85140718965&doi=10.1109%2fJBHI.2022.3215921&partnerID=40&md5=f9da0eae384a8e4ef8251ff1df790c4f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85140718965&doi=10.1109%2fJBHI.2022.3215921&partnerID=40&md5=f9da0eae384a8e4ef8251ff1df790c4f)
- Wegner, T.E., Gebhardt, S., Del Galdo, G. (2023): Fill level measurement of low-permittivity material using an M-sequence UWB radar. In: International Journal of Microwave and Wireless Technologies (Article). DOI:10.1017/S1759078723000739. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165121540&doi=10.1017%2fS1759078723000739&partnerID=40&md5=25f868fa8db380418fa184d5748c86fe](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165121540&doi=10.1017%2fS1759078723000739&partnerID=40&md5=25f868fa8db380418fa184d5748c86fe)
- Gojdka, B., Cichon, D., Stahl-Offergeld, M., Schroder, D., Clausen, N., Hedayat, C., Hohe, H.-P., Lisec, T. (2023): Fully Integrated Back-Biased 3d Hall Sensor with Wafer-Level Integrated Permanent Micromagnets. In: Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS) (Conference Paper). DOI:10.1109/MEMS49605.2023.10052184. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149880367&doi=10.1109%2fMEMS49605.2023.10052184&partnerID=40&md5=434c3e3af8f6ae6fc9a986c4d3e1fdc2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149880367&doi=10.1109%2fMEMS49605.2023.10052184&partnerID=40&md5=434c3e3af8f6ae6fc9a986c4d3e1fdc2)
- Wittenberg, T., Ibrahim, I., Draeger, T. (2023): Identification of Surgical Instruments Using a Low Frequency Magnetic Field. In: Current Directions in Biomedical Engineering (Conference Paper). DOI:10.1515/cdbme-2023-1015. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173251683&doi=10.1515%2fcdme-2023-1015&partnerID=40&md5=046f4577ae46234c95f522c5b99b0d6a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173251683&doi=10.1515%2fcdme-2023-1015&partnerID=40&md5=046f4577ae46234c95f522c5b99b0d6a)
- Ben Halima, H., Bellagambi, F.G., Brunon, F., Alcacer, A., Pfeiffer, N., Heuberger, A., Hangouët, M., Zine, N., Bausells, J., Errachid, A. (2023): Immuno field-effect transistor (ImmunoFET) for detection of salivary cortisol using potentiometric and impedance spectroscopy for monitoring

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

heart failure. In: *Talanta* (Article). DOI:10.1016/j.talanta.2022.123802. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149784190&doi=10.1016%2ftalanta.2022.123802&partnerID=40&md5=6b7c7b2ae7cf1e98009e65c2a80ecc95](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149784190&doi=10.1016%2ftalanta.2022.123802&partnerID=40&md5=6b7c7b2ae7cf1e98009e65c2a80ecc95)

- Gatti, F.J., Cai, W., Herzog, R., Gharavian, A., Kailer, A., Baltes, N., Rabenecker, P., Mörchel, P., Balzer, B.N., Amann, T., Rühle, J. (2023): Investigation of Programmable Friction with Ionic Liquid Mixtures at the Nano- and Macroscales. In: *Lubricants* (Article). DOI:10.3390/lubricants11090376. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172189857&doi=10.3390%2flubricants11090376&partnerID=40&md5=a381c9e4934d0a6a0034140f64eb97e0](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172189857&doi=10.3390%2flubricants11090376&partnerID=40&md5=a381c9e4934d0a6a0034140f64eb97e0)
- Dawood, P., Breuer, F., Stebani, J., Burd, P., Homolya, I., Oberberger, J., Jakob, P.M., Blaimer, M. (2023): Iterative training of robust k-space interpolation networks for improved image reconstruction with limited scan specific training samples. In: *Magnetic Resonance in Medicine* (Article). DOI:10.1002/mrm.29482. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85139608579&doi=10.1002%2fmrm.29482&partnerID=40&md5=dc940374d13030b00a90bd22211064eb](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85139608579&doi=10.1002%2fmrm.29482&partnerID=40&md5=dc940374d13030b00a90bd22211064eb)
- van der Merwe, J.R., Contreras Franco, D., Hansen, J., Brieger, T., Feigl, T., Ott, F., Jdidi, D., Rügamer, A., Felber, W. (2023): Low-Cost COTS GNSS Interference Monitoring, Detection, and Classification System †. In: *Sensors* (Article). DOI:10.3390/s23073452. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152313079&doi=10.3390%2fs23073452&partnerID=40&md5=61440e1b86ccf075652700340652fee7](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152313079&doi=10.3390%2fs23073452&partnerID=40&md5=61440e1b86ccf075652700340652fee7)
- Orberger, Beate;Wagner, Christiane;Boudama, Omar;Rividi, Nicolas;Bauer, Christine;Wagner, Rebecca;Nabatian, Ghasem;Honarmand, Maryam;Monsef, Iman (2023): Magnetite-Hematite Characterization at Micron Scale with Implications for Metallurgical Processing and Decarbonization. In: *Materials proceedings* (Article). DOI:10.3390/materproc2023015037. Link: [J1https://publica.fraunhofer.de/entities/publication/efbf5b25-16ea-44d2-ae28-36558fda5e9e/details](https://publica.fraunhofer.de/entities/publication/efbf5b25-16ea-44d2-ae28-36558fda5e9e/details)
- Korek, E.-M., Kounoupioti, E., Brederlow, R. (2023): Manufacturing of Flexible, Impedimetric Potassium Sensors. In: *IEEE Sensors Letters* (Article). DOI:10.1109/LSENS.2023.3267798. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153795185&doi=10.1109%2fLSENS.2023.3267798&partnerID=40&md5=460ab3888d7c1f55ed455597aba5ab72](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153795185&doi=10.1109%2fLSENS.2023.3267798&partnerID=40&md5=460ab3888d7c1f55ed455597aba5ab72)
- Ott, J., Stahlke, M., Kram, S., Feigl, T., Mutschler, C. (2023): Multipath Delay Estimation in Complex Environments using Transformer. In: *Proceedings of the 2023 13th International Conference on Indoor Positioning and Indoor Navigation, IPIN 2023* (Conference Paper). DOI:10.1109/IPIN57070.2023.10332470. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180772618&doi=10.1109%2fIPIN57070.2023.10332470&partnerID=40&md5=03f1f42c6193c97999f885e26864968f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180772618&doi=10.1109%2fIPIN57070.2023.10332470&partnerID=40&md5=03f1f42c6193c97999f885e26864968f)
- Rettenberger, Simon;Landstorfer, Peter;Herl, Gabriel;Meyer, Björn;Mattausch, Gösta;Labitzke, Rainer (2023): Multi-Source-CT for inline inspection of extruded profiles. In: *NDT.net*. Online resource (Article). DOI:10.58286/27703. Link: [J1https://publica.fraunhofer.de/entities/publication/3094ab68-a8ec-4e82-a119-da52f5f9bf4f/details](https://publica.fraunhofer.de/entities/publication/3094ab68-a8ec-4e82-a119-da52f5f9bf4f/details)
- Fey, P., Weber, D.L., Stebani, J., Mörchel, P., Jakob, P., Hansmann, J., Hiller, K.-H., Haddad, D. (2023): Non-destructive classification of unlabeled cells: Combining an automated benchtop magnetic resonance scanner and artificial intelligence. In: *PLoS Computational Biology* (Article). DOI:10.1371/journal.pcbi.1010842. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149174053&doi=10.1371%2fjournal.pcbi.1010842&partnerID=40&md5=f13e24f8d339661e1926b95e5103914d](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149174053&doi=10.1371%2fjournal.pcbi.1010842&partnerID=40&md5=f13e24f8d339661e1926b95e5103914d)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

- Schommer, D., Duhovic, M., Hoffmann, T., Ernst, J., Schladitz, K., Moghiseh, A., Gortner, F., Hausmann, J., Mitschang, P., Steiner, K. (2023): Polarization imaging for surface fiber orientation measurements of carbon fiber sheet molding compounds. In: Composites Communications (Article). DOI:10.1016/j.coco.2022.101456. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85144994861&doi=10.1016%2fj.coco.2022.101456&partnerID=40&md5=9fb1a9410f110b8daf4d131f26cb77fd](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85144994861&doi=10.1016%2fj.coco.2022.101456&partnerID=40&md5=9fb1a9410f110b8daf4d131f26cb77fd)
- Gnepper, O., Hitzer, H., Enge-Rosenblatt, O. (2023): Predictive Diagnosis in Axial Piston Pumps: A Study for High Frequency Condition Indicators Under Variable Operating Conditions. In: International Journal of Prognostics and Health Management (Article). DOI:10.36001/ijphm.2023.v14i1.3393. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152798606&doi=10.36001%2fijphm.2023.v14i1.3393&partnerID=40&md5=26ebfdafadb258e58cfdda86b562773c](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152798606&doi=10.36001%2fijphm.2023.v14i1.3393&partnerID=40&md5=26ebfdafadb258e58cfdda86b562773c)
- Frotzsch, A., Chen, X., Tran, D.L., Goll, T., Sadeghian, H., Wu, F., Dehmel, M., Wohlfahrt, T., Riedl, M., Haddadin, S. (2023): Self-Organization and Collaboration in Robotic Manufacturing Systems. In: IEEE International Conference on Automation Science and Engineering (Conference Paper). DOI:10.1109/CASE56687.2023.10260499. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174407883&doi=10.1109%2fCASE56687.2023.10260499&partnerID=40&md5=e54037d9726d0fa6eac7341829adf5ff](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174407883&doi=10.1109%2fCASE56687.2023.10260499&partnerID=40&md5=e54037d9726d0fa6eac7341829adf5ff)
- Goetz, T., Arora, P., Erick, F.X., Holzer, N., Sawant, S. (2023): Self-supervised representation learning using multimodal Transformer for emotion recognition. In: ACM International Conference Proceeding Series (Conference Paper). DOI:10.1145/3615834.3615837. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178290767&doi=10.1145%2f3615834.3615837&partnerID=40&md5=b3deea24002b1b64d75e7f52fbb94aab](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178290767&doi=10.1145%2f3615834.3615837&partnerID=40&md5=b3deea24002b1b64d75e7f52fbb94aab)
- Ravelo, C., Martín-Sacristán, D., Haider Shah, S.N., Smeenk, C., Del Galdo, G., Monserrat, J.F. (2023): Sensing Resources Reduction for Vehicle Detection with Integrated Sensing and Communications. In: IEEE Vehicular Technology Conference (Conference Paper). DOI:10.1109/VTC2023-Spring57618.2023.10199358. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169818768&doi=10.1109%2fVTC2023-Spring57618.2023.10199358&partnerID=40&md5=1e48f68ad631d591086cd80e6716eb7a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169818768&doi=10.1109%2fVTC2023-Spring57618.2023.10199358&partnerID=40&md5=1e48f68ad631d591086cd80e6716eb7a)
- Krause, D., Stahl-Offergeld, M., Sand, M., Kohlbrenner, C., Weigel, R. (2023): Sensor Resistance Based Sensitivity Temperature Drift Tracking of Integrated 3D Hall Sensors. In: Proceedings of IEEE Sensors (Conference Paper). DOI:10.1109/SENSORS56945.2023.10325285. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179756222&doi=10.1109%2fSENSORS56945.2023.10325285&partnerID=40&md5=3f831bd2116ce87a90a6e62a9a53200b](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179756222&doi=10.1109%2fSENSORS56945.2023.10325285&partnerID=40&md5=3f831bd2116ce87a90a6e62a9a53200b)
- Wagner, C.W., Braunlich, N., Drenkhahn, K.E., Glaser, G. (2023): Shut Off! - Hybrid BICMOS Logic for Power-Efficient High Speed Circuits. In: Proceedings - 2023 19th International Conference on Synthesis, Modeling, Analysis and Simulation Methods, and Applications to Circuit Design, SMACD 2023 (Conference Paper). DOI:10.1109/SMACD58065.2023.10192217. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168677211&doi=10.1109%2fSMACD58065.2023.10192217&partnerID=40&md5=8a67675a1ae3aad0fa7ee679c29bea08](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168677211&doi=10.1109%2fSMACD58065.2023.10192217&partnerID=40&md5=8a67675a1ae3aad0fa7ee679c29bea08)
- Ravichandran, L., Soleymani, D.M., Roth-Mandutz, E., Leyh, M., Harounabadi, M. (2023): Study on Autonomous Resource Selection in Sidelink Vehicular Communication on mmWave and Sub-THz in 6G. In: 2023 IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2023 (Conference Paper). DOI:10.1109/BlackSeaCom58138.2023.10299731. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

85179010968&doi=10.1109%2fBlackSeaCom58138.2023.10299731&part-
nerID=40&md5=1c708bedbbdce152a8bb13fe7b04fece

- Fell, Jonas;Pauly, Christoph;Maisl, Michael;Zabler, Simon;Mücklich, Frank Thomas;Herrmann, Hans-Georg (2023): Three-dimensional imaging of microstructural evolution in SEM-based nano-CT. In: Tomography of Materials and Structures (Article). DOI:10.1016/j.tmater.2023.100009. Link: J1<https://publica.fraunhofer.de/entities/publication/26f2a0f2-0345-46d9-bddd-386a906a7ff6/details>
- Cosmas, J., Ali, K., Araújo, M., Béchadergue, B., Chen, H., Dupleich, D.A., Eappen, G., Keskin, M.F., Goodarzi, M., Guo, H., Koffman, I., Lindberg, S., Mahbas, A., Mendes, B., Meunier, B., Taghavi, E.M., Ramirez, A., Sark, V., Schindhelm, K., Svensson, T., Van der Perre, L., Wilding, T., Wymeersch, H., Yajnanarayana, V., Zhang, X., Zhao, H. (2023): Towards joint communication and sensing. In: Towards Sustainable and Trustworthy 6G: Challenges, Enablers, and Architectural Design (Book Chapter). DOI:10.1561/9781638282396.ch4. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85163383608&doi=10.1561%2f9781638282396.ch4&partnerID=40&md5=41dc76fb8047b8278fce9e2bf384bd5e>
- Jotschke, M., Kumaraveeran, P., Buhl, R., Zeugmann, B. (2023): Ultra-Low Power Fully-Digital Audio-DAC for Hearing Aid Application in 22 nm FDSOI Technology. In: 2023 Smart Systems Integration Conference and Exhibition, SSI 2023 (Conference Paper). DOI:10.1109/SSI58917.2023.10387956. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184821477&doi=10.1109%2fSSI58917.2023.10387956&partnerID=40&md5=5f2a803c120d5dbac8caa6c230475478>
- Stahlke, M., Feigl, T., Kram, S., Eskofier, B.M., Mutschler, C. (2023): Uncertainty-based Fingerprinting Model Selection for Radio Localization. In: Proceedings of the 2023 13th International Conference on Indoor Positioning and Indoor Navigation, IPIN 2023 (Conference Paper). DOI:10.1109/IPIN57070.2023.10332531. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178126346&doi=10.1109%2fIPIN57070.2023.10332531&partnerID=40&md5=9a1cac42cf3ce7ca63f010f0ae43415d>
- Rugamer, A., Melgard, T.E., De Wilde, W., Gerstung, H., Wegmann, I., Schellekens, D. (2023): Validation of a Combined GNSS Correction and NMA L-Band Service Against Spoofing. In: 2023 IEEE/ION Position, Location and Navigation Symposium, PLANS 2023 (Conference Paper). DOI:10.1109/PLANS53410.2023.10140014. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162865701&doi=10.1109%2fPLANS53410.2023.10140014&partnerID=40&md5=c26b464689b4ff76a20373d7ffae459f>
- Zahn, A., Koch, V., Schreff, L., Oschmann, P., Winkler, J., Gaßner, H., Müller, R. (2023): Validity of an inertial sensor-based system for the assessment of spatio-temporal parameters in people with multiple sclerosis. In: Frontiers in Neurology (Article). DOI:10.3389/fneur.2023.1164001. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152592546&doi=10.3389%2ffneur.2023.1164001&partnerID=40&md5=ff37384c4756f6299737e5bce675baa3>
- Franke, L., Rückert, D., Fink, L., Innmann, M., Stamminger, M. (2023): VET: Visual Error Tomography for Point Cloud Completion and High-Quality Neural Rendering. In: Proceedings - SIGGRAPH Asia 2023 Conference Papers, SA 2023 (Conference Paper). DOI:10.1145/3610548.3618212. Link: J1<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85181771268&doi=10.1145%2f3610548.3618212&partnerID=40&md5=ff5d08410218134e31d2d29eab186c59>
- Rinaldi, N., Liguori, R., May, A., Rossi, C., Rommel, M., Rubino, A., Licciardo, G.D., Di Benedetto, L. (2023): A 4H-SiC CMOS Oscillator-Based Temperature Sensor Operating from 298 K

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

up to 573 K. In: *Sensors* (Article). DOI:10.3390/s23249653. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180618107&doi=10.3390%2fs23249653&partnerID=40&md5=c28b1b04e84d6dba77f7de7b4a98f78b](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180618107&doi=10.3390%2fs23249653&partnerID=40&md5=c28b1b04e84d6dba77f7de7b4a98f78b)

- Mo, J., Li, J., Zhang, Y., Romijn, J., May, A., Erlbacher, T., Zhang, G., Vollebregt, S. (2023): A Highly Linear Temperature Sensor Operating up to 600°C in a 4H-SiC CMOS Technology. In: *IEEE Electron Device Letters* (Article). DOI:10.1109/LED.2023.3268334. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153474550&doi=10.1109%2fLED.2023.3268334&partnerID=40&md5=e80bc5c5959cee12cca744c41f552b66](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153474550&doi=10.1109%2fLED.2023.3268334&partnerID=40&md5=e80bc5c5959cee12cca744c41f552b66)
- Schwarz, J., Niebauer, M., Kolešnik-Gray, M., Szabo, M., Baier, L., Chava, P., Erbe, A., Krstić, V., Rommel, M., Hutzler, A. (2023): Correlating Optical Microspectroscopy with 4×4 Transfer Matrix Modeling for Characterizing Birefringent Van der Waals Materials. In: *Small Methods* (Article). DOI:10.1002/smtd.202300618. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165146975&doi=10.1002%2fsmtd.202300618&partnerID=40&md5=b718f2efd6890298517401e54b637b2a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165146975&doi=10.1002%2fsmtd.202300618&partnerID=40&md5=b718f2efd6890298517401e54b637b2a)
- Niu, Y., Mo, J., May, A., Rommel, M., Rossi, C., Romijn, J., Zhang, G., Vollebregt, S. (2023): Design and Characterization of a Data Converter in a SiC CMOS Technology for Harsh Environment Sensing Applications. In: *Proceedings of IEEE Sensors* (Conference Paper). DOI:10.1109/SENSOR56945.2023.10325061. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179762138&doi=10.1109%2fSENSOR56945.2023.10325061&partnerID=40&md5=affe06471c829332437d06f9359d8e47](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179762138&doi=10.1109%2fSENSOR56945.2023.10325061&partnerID=40&md5=affe06471c829332437d06f9359d8e47)
- Couasnon, T., Fritsch, B., Jank, M.P.M., Blukis, R., Hutzler, A., Benning, L.G. (2023): Goethite Mineral Dissolution to Probe the Chemistry of Radiolytic Water in Liquid-Phase Transmission Electron Microscopy. In: *Advanced Science* (Article). DOI:10.1002/advs.202301904. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164749581&doi=10.1002%2fadvs.202301904&partnerID=40&md5=88bdd76a26ab27b978c8c91f41d5855c](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164749581&doi=10.1002%2fadvs.202301904&partnerID=40&md5=88bdd76a26ab27b978c8c91f41d5855c)
- Marhenke, J., Dirnecker, T., Vogel, N., Rommel, M. (2023): Increasing flow rates in polydimethylsiloxane-based deterministic lateral displacement devices for sub-micrometer particle separation. In: *Microfluidics and Nanofluidics* (Article). DOI:10.1007/s10404-022-02609-0. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85142225285&doi=10.1007%2fs10404-022-02609-0&partnerID=40&md5=1665d7d01ce822a5d9f3d13b22b7b9cf](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85142225285&doi=10.1007%2fs10404-022-02609-0&partnerID=40&md5=1665d7d01ce822a5d9f3d13b22b7b9cf)
- Song, Y., Xu, Z., Rommel, M. (2023): On the interpretation of confocal spectral depth profiling of color center and carrier concentration by photoluminescence and Raman of implanted 4H-SiC. In: *Ceramics International* (Article). DOI:10.1016/j.ceramint.2022.12.214. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145730903&doi=10.1016%2fj.ceramint.2022.12.214&partnerID=40&md5=cae2e43c2b93d0624df311a05ec12af2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145730903&doi=10.1016%2fj.ceramint.2022.12.214&partnerID=40&md5=cae2e43c2b93d0624df311a05ec12af2)
- Hollendonner, M., Sharma, S., Parthasarathy, S.K., Dasari, D.B.R., Finkler, A., Kusminskiy, S.V., Nagy, R. (2023): Quantum sensing of electric field distributions of liquid electrolytes with NV-centers in nanodiamonds. In: *New Journal of Physics* (Article). DOI:10.1088/1367-2630/acf392. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85171023425&doi=10.1088%2f1367-2630%2facf392&partnerID=40&md5=54ad793d13b8645cc1170aa57115b8b3](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85171023425&doi=10.1088%2f1367-2630%2facf392&partnerID=40&md5=54ad793d13b8645cc1170aa57115b8b3)
- Michałowski, P.P., Müller, J., Rossi, C., Burenkov, A., Bär, E., Larrieu, G., Pichler, P. (2023): Secondary ion mass spectrometry quantification of boron distribution in an array of silicon nanowires. In: *Measurement: Journal of the International Measurement Confederation* (Article).

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

DOI:10.1016/j.measurement.2023.112630. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149536410&doi=10.1016%2fj.measurement.2023.112630&partnerID=40&md5=0ffcdd3d3fafc601d9f4606479b80bd8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149536410&doi=10.1016%2fj.measurement.2023.112630&partnerID=40&md5=0ffcdd3d3fafc601d9f4606479b80bd8)

- Fritsch, B., Körner, A., Couasnon, T., Blukis, R., Benning, L., Jank, M.P.M., Spiecker, E., Hutzler, A. (2023): Towards Unveiling the Mystery of Electron-Liquid Interaction in Liquid-Phase TEM: Implications for Practical Application. In: *Microscopy and microanalysis : the official journal of Microscopy Society of America, Microbeam Analysis Society, Microscopical Society of Canada* (Article). DOI:10.1093/micmic/ozad067.327. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168594773&doi=10.1093%2fmicmic%2fozad067.327&partnerID=40&md5=15cea2b7296d56f34874d92c01159f32](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168594773&doi=10.1093%2fmicmic%2fozad067.327&partnerID=40&md5=15cea2b7296d56f34874d92c01159f32)
- vom Bögel, G., Vossiek, M., Wietfeld, C., Haferkamp, M., Häger, S., Sezgin, A., Weimer, M., Thill, R., Sivadevuni, S.S., Böcker, S., Pohl, N., Wessel, J., Braun, T.T., Kögel, T., Geiß, J. (2023): 6GEM Perspective on Joint Communication and Sensing. In: *WSA and SCC 2023 - 26th International ITG Workshop on Smart Antennas and 13th Conference on Systems, Communications, and Coding* (Conference Paper). DOI:. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166950253&partnerID=40&md5=8daaeb9da20f44e0cdd5d8432913a5f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166950253&partnerID=40&md5=8daaeb9da20f44e0cdd5d8432913a5f)
- Löhler, Philipp; Pickhinke, Andreas; Erbslöh, Andreas; Seidl, Karsten (2023): A 1,224-Channel 60 µm Pitch Active Closed-Loop Stimulator for Selective Retinal Ganglion Cell Type Activation. In: *21st IEEE Interregional NEWCAS Conference, NEWCAS 2023. Conference Proceedings* (Conference Paper). DOI:10.1109/NEWCAS57931.2023.10198191. Link: [J1https://publica.fraunhofer.de/entities/publication/dc6c01d4-a565-48f0-81a2-6830e2f0e62a/details](https://publica.fraunhofer.de/entities/publication/dc6c01d4-a565-48f0-81a2-6830e2f0e62a/details)
- Löhler, Philipp; Albert, Andreas; Erbslöh, Andreas; Nruthyathi, Nruthyathi; Müller, Karsten; Seidl, Karsten (2023): A Cell-Type Selective Stimulation and Recording System for Retinal Ganglion Cells. In: *IEEE Transactions on Biomedical Circuits and Systems* (Article). DOI:10.1109/TBCAS.2023.3342465. Link: [J1https://publica.fraunhofer.de/entities/publication/c2cb2af2-46f1-4d5c-82dc-dfa8bf0db912/details](https://publica.fraunhofer.de/entities/publication/c2cb2af2-46f1-4d5c-82dc-dfa8bf0db912/details)
- Krupp, Lukas; Wiede, Christian; Friedhoff, Joachim; Grabmaier, Anton (2023): A Cognitive Sensor System Architecture for the Monitoring of Flexible Machining Systems. In: *IEEE SENSORS 2023. Conference Proceedings* (Conference Paper). DOI:10.1109/SENSORS56945.2023.10325023. Link: [J1https://publica.fraunhofer.de/entities/publication/0966f6a1-b2ce-45bb-94ae-155cbc36e80d/details](https://publica.fraunhofer.de/entities/publication/0966f6a1-b2ce-45bb-94ae-155cbc36e80d/details)
- Essingholt, F., Böller, S., Grenter, T., Grabmaier, A. (2023): A Microwave Reflection-Based Measurement System for Moisture Detection in Textiles. In: *2023 Photonics and Electromagnetics Research Symposium, PIERS 2023 - Proceedings* (Conference Paper). DOI:10.1109/PIERS59004.2023.10221425. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172029284&doi=10.1109%2fPIERS59004.2023.10221425&partnerID=40&md5=eaf7a4cd2f78c50010b5b02886d79dd6](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172029284&doi=10.1109%2fPIERS59004.2023.10221425&partnerID=40&md5=eaf7a4cd2f78c50010b5b02886d79dd6)
- Becker, Niels; Abusaleh, Islam Abdulsalm Masoud; Wiede, Christian; Krakowski-Roosen, Holger; Seidl, Karsten (2023): Blood pressure determination by means of ballistocardiogram and artificial intelligence. In: *Biomedizinische Technik* (Article). DOI:10.24406/publica-2032. Link: [J1https://publica.fraunhofer.de/entities/publication/51b94806-d9c5-478d-ad40-b6df13996c44/details](https://publica.fraunhofer.de/entities/publication/51b94806-d9c5-478d-ad40-b6df13996c44/details)
- Schaberg, Lars Leander; Kubiczek, Tobias; Santhakumaran, Sabisan; Burkard, Roman; Mertin, Wolfgang; Muckel, Franziska; Bacher, Gerd; Schall-Giesecke, Anna Lena; Neumaier, D.; Balzer, Jan C.; Kirchner, Elsa Andrea; Benson, Niels (2023): Body Motion detection using epidermal electronic graphene patches. In: *Biomedizinische Technik* (Article). DOI:10.24406/publica-2070.

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

Link: [J1https://publica.fraunhofer.de/entities/publication/300014b4-97c6-4615-aab4-228e66a3e421/details](https://publica.fraunhofer.de/entities/publication/300014b4-97c6-4615-aab4-228e66a3e421/details)

- Grollius, S., Ligges, M., Ruskowski, J., Grabmaier, A. (2023): Concept of an Automotive LiDAR Target Simulator for Direct Time-of-Flight LiDAR. In: IEEE Transactions on Intelligent Vehicles (Article). DOI:10.1109/TIV.2021.3128808. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147543590&doi=10.1109%2fTIV.2021.3128808&partnerID=40&md5=277451402e91d1273bdfb343c383dc3e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147543590&doi=10.1109%2fTIV.2021.3128808&partnerID=40&md5=277451402e91d1273bdfb343c383dc3e)
- Alic, B., Zauber, T., Viga, R., Seidl, K., Wiede, C., Seidl, K. (2023): Contactless camera-based AHI score estimation in SAS patients. In: Current Directions in Biomedical Engineering (Conference Paper). DOI:10.1515/cdbme-2023-1055. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173257446&doi=10.1515%2fcdme-2023-1055&partnerID=40&md5=aea977e1f69a7199a6adde60050d34c9](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173257446&doi=10.1515%2fcdme-2023-1055&partnerID=40&md5=aea977e1f69a7199a6adde60050d34c9)
- Alić, B., Zauber, T., Zhang, C., Liao, W., Wildenauer, A., Leosz, N., Eggert, T., Dietz-Terjung, S., Sutharsan, S., Weinreich, G., Schöbel, C., Notni, G., Wiede, C., Seidl, K. (2023): Contactless Optical Detection of Nocturnal Respiratory Events. In: Proceedings of the International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (Conference Paper). DOI:10.5220/0011694400003417. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172935741&doi=10.5220%2f0011694400003417&partnerID=40&md5=b17609efe358cd3b9b5d2623fe6d2577](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172935741&doi=10.5220%2f0011694400003417&partnerID=40&md5=b17609efe358cd3b9b5d2623fe6d2577)
- Alić, Belmin; Seidel, Roman; Wichum, Felix; Wiede, Christian; Seidl, Karsten; Hirtz, Gangolf (2023): Contactless recording of vital parameters to evaluate the quality of sleep in the nursing environment. In: Biomedizinische Technik (Article). DOI:10.24406/publica-2017. Link: [J1https://publica.fraunhofer.de/entities/publication/bd733cc5-dea8-4812-b541-6450a005982a/details](https://publica.fraunhofer.de/entities/publication/bd733cc5-dea8-4812-b541-6450a005982a/details)
- Selvaggio, G., Herrmann, N., Hill, B., Dervişoğlu, R., Jung, S., Weitzel, M., Dinarvand, M., Stalke, D., Andreas, L., Kruss, S. (2023): Covalently Functionalized Egyptian Blue Nanosheets for Near-Infrared Bioimaging. In: ACS Applied Bio Materials (Article). DOI:10.1021/acscabm.2c00872. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85144748653&doi=10.1021%2facscabm.2c00872&partnerID=40&md5=abdbdf7bc56cc2e2213f442cb4a5d12a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85144748653&doi=10.1021%2facscabm.2c00872&partnerID=40&md5=abdbdf7bc56cc2e2213f442cb4a5d12a)
- Alić, B., Zauber, T., Wiede, C., Seidl, K. (2023): Current methods for contactless optical patient diagnosis: a systematic review. In: BioMedical Engineering Online (Review). DOI:10.1186/s12938-023-01125-8. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162018748&doi=10.1186%2fs12938-023-01125-8&partnerID=40&md5=ddc372369384754458e64ded497880aa](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162018748&doi=10.1186%2fs12938-023-01125-8&partnerID=40&md5=ddc372369384754458e64ded497880aa)
- Boller, S., Greuter, T., Grabmaier, A. (2023): Design of a Passive Retrodirective SHF-RFID Transponder for Communication and Localization. In: 2023 Photonics and Electromagnetics Research Symposium, PIERS 2023 - Proceedings (Conference Paper). DOI:10.1109/PIERS59004.2023.10221548. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172009162&doi=10.1109%2fPIERS59004.2023.10221548&partnerID=40&md5=227558502389d888322377b65b385bf2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172009162&doi=10.1109%2fPIERS59004.2023.10221548&partnerID=40&md5=227558502389d888322377b65b385bf2)
- Hoyer, I., Utz, A., Lüdecke, A., Kappert, H., Rohr, M., Antink, C.H., Seidl, K. (2023): Design of Hardware Accelerators for Optimized and Quantized Neural Networks to Detect Atrial Fibrillation in Patch ECG Device with RISC-V. In: Sensors (Article). DOI:10.3390/s23052703. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149740240&doi=10.3390%2fs23052703&partnerID=40&md5=56557663da785594e419557bb8e42419](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149740240&doi=10.3390%2fs23052703&partnerID=40&md5=56557663da785594e419557bb8e42419)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

- Krupp, Lukas; Wiede, Christian; Friedhoff, Joachim; Grabmaier, Anton (2023): Explainable Remaining Tool Life Prediction for Individualized Production Using Automated Machine Learning. In: Sensors. Online journal (Article). DOI:10.3390/s23208523. Link: [J1https://publica.fraunhofer.de/entities/publication/dc11e8a3-d9f2-4745-ab48-e189c2ba2bc3/details](https://publica.fraunhofer.de/entities/publication/dc11e8a3-d9f2-4745-ab48-e189c2ba2bc3/details)
- Brechmann, N., Michel, M., Bola, A., Renz, F., Pickhinke, A., Seidl, K. (2023): Fabrication and characterization of CMOS-compatible perforated micromembranes for biomedical applications. In: Current Directions in Biomedical Engineering (Conference Paper). DOI:10.1515/cdbme-2023-1110. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173576066&doi=10.1515%2fcdbme-2023-1110&partnerID=40&md5=9609aff71635a89bfc37a202b98cd95](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173576066&doi=10.1515%2fcdbme-2023-1110&partnerID=40&md5=9609aff71635a89bfc37a202b98cd95)
- Albert, Andreas; Löhler, Philipp; Erbslöh, Andreas; Michel, Marvin Daniel; Freialdenhoven, Anne; Johnen, Sandra; Seidl, Karsten (2023): Fabrication process of hexagonally arranged needle electrodes for direct retinal contact. In: Biomedizinische Technik (Article). DOI:10.24406/publica-2016. Link: [J1https://publica.fraunhofer.de/entities/publication/f0fd1f49-6774-4c9d-8395-621bc23ff9e9/details](https://publica.fraunhofer.de/entities/publication/f0fd1f49-6774-4c9d-8395-621bc23ff9e9/details)
- Albert, Andreas; Löhler, Philipp; Erbslöh, Andreas; Michel, Marvin Daniel; Seidl, Karsten (2023): FEM Model of a hexagonally arranged Needle Electrode Array with Local Return for a Retinal Implant. In: Biomedizinische Technik (Article). DOI:10.24406/publica-2020. Link: [J1https://publica.fraunhofer.de/entities/publication/567618f3-8491-4d5f-b71e-1d4d61afd06c/details](https://publica.fraunhofer.de/entities/publication/567618f3-8491-4d5f-b71e-1d4d61afd06c/details)
- Boller, S., Greuter, T., Grabmaier, A. (2023): FMCW Based Positioning Using Multiple SHF RFID Transponders. In: Proceedings of the 2023 13th International Conference on Indoor Positioning and Indoor Navigation, IPIN 2023 (Conference Paper). DOI:10.1109/IPIN57070.2023.10332495. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180784229&doi=10.1109%2fIPIN57070.2023.10332495&partnerID=40&md5=25cc64d993b3f09690058f4d9a0203ef](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180784229&doi=10.1109%2fIPIN57070.2023.10332495&partnerID=40&md5=25cc64d993b3f09690058f4d9a0203ef)
- Galonska, P., Mohr, J.M., Schrage, C.A., Schnitzler, L., Kruss, S. (2023): Guanine Quantum Defects in Carbon Nanotubes for Biosensing. In: Journal of Physical Chemistry Letters (Article). DOI:10.1021/acs.jpcllett.3c00358. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85151831409&doi=10.1021%2facsc.jpcllett.3c00358&partnerID=40&md5=ba05a6f9216b3c1695939ae3fdadee9e2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85151831409&doi=10.1021%2facsc.jpcllett.3c00358&partnerID=40&md5=ba05a6f9216b3c1695939ae3fdadee9e2)
- Galonska, Phillip; Mohr, Jennifer M.; Schrage, C. Alexander; Schnitzler, Lena; Kruss, Sebastian (2023): Guanine quantum defects in carbon nanotubes for biosensing. In: (Paper). DOI:10.26434/chemrxiv-2023-7cl1d. Link: [J1https://publica.fraunhofer.de/entities/publication/e533d0c0-17a8-4f81-861b-5add0a6495d9/details](https://publica.fraunhofer.de/entities/publication/e533d0c0-17a8-4f81-861b-5add0a6495d9/details)
- Hoyer, I., Berg, O., Krupp, L., Utz, A., Wiede, C., Seidl, K. (2023): Hardware Accelerators for a Convolutional Neural Network in Condition Monitoring of CNC Machines. In: Proceedings of IEEE Sensors (Conference Paper). DOI:10.1109/SENSOR556945.2023.10324987. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179754129&doi=10.1109%2fSENSOR556945.2023.10324987&partnerID=40&md5=1ac346a83b107c26847f306306da5fd5](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179754129&doi=10.1109%2fSENSOR556945.2023.10324987&partnerID=40&md5=1ac346a83b107c26847f306306da5fd5)
- Ackermann, J., Stegemann, J., Smola, T., Reger, E., Jung, S., Schmitz, A., Herberitz, S., Erpenbeck, L., Seidl, K., Kruss, S. (2023): High Sensitivity Near-Infrared Imaging of Fluorescent Nanosensors. In: Small (Article). DOI:10.1002/smll.202206856. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145849550&doi=10.1002%2fsmll.202206856&partnerID=40&md5=c04cb3f19d0b7eb1bed2a577a7c00c88](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145849550&doi=10.1002%2fsmll.202206856&partnerID=40&md5=c04cb3f19d0b7eb1bed2a577a7c00c88)
- Buschek, J., Eckardt, A., Manthey, K., Sengebusch, K., Schrey, O., Piechaczek, D., Kahmen, G. (2023): In-orbit VNIR sensor quality validation. In: Proceedings of SPIE - The International Society

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

for Optical Engineering (Conference Paper). DOI:10.1117/12.2680166. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179555649&doi=10.1117%2f12.2680166&partnerID=40&md5=4c2fd6df74bf3a9ba98bb28edc1ebad7>

- Vora, K., Kordas, N., Seidl, K. (2023): Label-Free, Impedance-Based Biosensor for Kidney Disease Biomarker Uromodulin. In: Sensors (Article). DOI:10.3390/s23249696. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85180729910&doi=10.3390%2fs23249696&partnerID=40&md5=f3a784bc7c103232dd0e269bcb5b6022>
- Michel, Marvin Daniel; Walk, Christian; Neubieser, Rahel-Manuela (2023): Low Temperature ALD Processes for Cardiac Implant Encapsulation. In: Biomedizinische Technik (Article). DOI:10.24406/publica-2047. Link: <https://publica.fraunhofer.de/entities/publication/1e565e04-97cd-45a6-9b1c-b26f16006869/details>
- Erbslöh, Andreas; Zimmermann, Julius; Albert, Andreas; Rienen, Ursula van; Ingebrandt, Sven; Mokwa, Wilfried; Seidl, Karsten (2023): Method to Predict Microelectrode Impedances during Runtime for Electrical Stimulation and Recording in Future Neural Implants. In: Biomedizinische Technik (Article). DOI:10.24406/publica-2033. Link: <https://publica.fraunhofer.de/entities/publication/07a8007d-438d-4620-b5af-1f5ab2de7f5b/details>
- Vogel, Sönke; Täschner, Kerstin; Schepers, Maurice; Weyer, Sara (2023): Multi-Sensor-integrierte adaptive Scheinwerfer für robuste Fahrerassistenzsysteme. In: ATZ-Elektronik (Article). DOI:10.1007/s35658-023-1524-y. Link: <https://publica.fraunhofer.de/entities/publication/56ca384d-715b-4ffe-b8f9-bddca5a96e13/details>
- Sistemich, L., Galonska, P., Stegemann, J., Ackermann, J., Kruss, S. (2023): Near-Infrared Fluorescence Lifetime Imaging of Biomolecules with Carbon Nanotubes**. In: Angewandte Chemie - International Edition (Article). DOI:10.1002/anie.202300682. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152943516&doi=10.1002%2fanie.202300682&partnerID=40&md5=15221b8f90020fa58acad1a238ce7a84>
- Metternich, J.T., Wartmann, J.A.C., Sistemich, L., Nißler, R., Herbertz, S., Kruss, S. (2023): Near-Infrared Fluorescent Biosensors Based on Covalent DNA Anchors. In: Journal of the American Chemical Society (Article). DOI:10.1021/jacs.3c03336. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164303431&doi=10.1021%2fjacs.3c03336&partnerID=40&md5=1c9e21ef3cfae3c6ab9232226ae14791>
- Kobel, Svenja Nicola; Wichum, Felix; Önel, Hüseyin; Wiede, Christian; Seidl, Karsten (2023): Optical Non-Contact-Based Vital Sign Monitoring for Care Robots. In: Biomedizinische Technik (Article). DOI:10.24406/publica-2042. Link: <https://publica.fraunhofer.de/entities/publication/148efef3-b62c-4dd2-9be1-b86ffc66173e/details>
- Ma, C., Mohr, J.M., Lauer, G., Metternich, J.T., Neutsch, K., Ziebarth, T., Reiner, A., Kruss, S. (2023): Ratiometric Imaging of Catecholamine Neurotransmitters with Nanosensors. In: Nano Letters (Article). DOI:10.1021/acs.nanolett.3c05082. Link: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85185582698&doi=10.1021%2facf.nanolett.3c05082&partnerID=40&md5=fa3a364508b4a3e35157d0b376ae957f>
- Kappert, Holger; Schopferer, Sebastian; Saeidi, Nooshin; Döring, Ralf; Ziesche, Steffen; Olowinsky, Alexander; Naumann, Falk; Jäggle, Martin; Spanier, Malte; Grabmaier, Anton (2023): Sensor Systems for Extremely Harsh Environments. In: IMAPSource Proceedings (Article). DOI:10.4071/001c.89680. Link: <https://publica.fraunhofer.de/entities/publication/852ad038-2552-456a-a12a-ad1309ad57f1/details>

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

- Metternich, Justus Tom; Hill, Björn; Wartmann, Janus A.C.; Ma, Chen; Kruskop, Rebecca M.; Neutsch, Krisztian; Herbertz, Svenja; Kruss, Sebastian (2023): Signal Amplification and Near-Infrared Translation of Enzymatic Reactions by Nanosensors. In: *Angewandte Chemie. International edition (Article)*. DOI:10.1002/anie.202316965. Link: [J1https://publica.fraunhofer.de/entities/publication/cd488585-a141-49b9-9f0d-8d04812615ef/details](https://publica.fraunhofer.de/entities/publication/cd488585-a141-49b9-9f0d-8d04812615ef/details)
- Goller, Diana; Wiede, Christian; Seidl, Karsten (2023): Terahertz - based non-contact vital sign measurements. In: *Biomedizinische Technik (Article)*. DOI:10.24406/publica-2036. Link: [J1https://publica.fraunhofer.de/entities/publication/40b7b59b-680b-4dc5-a2ea-33d57d4f4ef9/details](https://publica.fraunhofer.de/entities/publication/40b7b59b-680b-4dc5-a2ea-33d57d4f4ef9/details)
- Hoyer, I., Utz, A., Lüdecke, A., Seidl, K., Roßman, Ö., Straczek, L., Akboyraz, O., Hessel, S. (2023): The ARTEMIS project: Mixed-Signal IC for Edge-AI-based Classification of ECG Signals. In: *Current Directions in Biomedical Engineering (Conference Paper)*. DOI:10.1515/cdbme-2023-1082. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174267246&doi=10.1515%2fcdbme-2023-1082&partnerID=40&md5=a7937e33ab759d4d40e64dad700cb4d8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174267246&doi=10.1515%2fcdbme-2023-1082&partnerID=40&md5=a7937e33ab759d4d40e64dad700cb4d8)
- Gembaczka, Pierre; Krupp, Lukas (2023): The internet is full of things. In: *Physics today (Article)*. DOI:10.1063/PT.3.5277. Link: [J1https://publica.fraunhofer.de/entities/publication/78ee50c7-eb67-4dec-bd8a-9cf81956a036/details](https://publica.fraunhofer.de/entities/publication/78ee50c7-eb67-4dec-bd8a-9cf81956a036/details)
- Nyboe, F.F., Malle, N.H., Bogel, G.V., Cousin, L., Heckel, T., Troidl, K., Madsen, A.S., Ebeid, E. (2023): Towards Autonomous UAV Railway DC Line Recharging: Design and Simulation. In: *Proceedings - IEEE International Conference on Robotics and Automation (Conference Paper)*. DOI:10.1109/ICRA48891.2023.10161506. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165658532&doi=10.1109%2ficra48891.2023.10161506&partnerID=40&md5=b0940d10fcbd46b4e447e1abf5de3c77](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165658532&doi=10.1109%2ficra48891.2023.10161506&partnerID=40&md5=b0940d10fcbd46b4e447e1abf5de3c77)
- Grüger, H., Knobbe, J., Kruse, J., Schulze, T. (2023): Applications for a broadband NIR spectrometer with scanning mirror device. In: *Proceedings of SPIE - The International Society for Optical Engineering (Conference Paper)*. DOI:10.1117/12.2649725. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159783571&doi=10.1117%2f12.2649725&partnerID=40&md5=758dc3a4752d2366ecbc5ea3c95728fd](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159783571&doi=10.1117%2f12.2649725&partnerID=40&md5=758dc3a4752d2366ecbc5ea3c95728fd)
- Wu, H., Krause, R., Gogoi, E., Reck, A., Graf, A., Wislicenus, M., Hild, O.R., Guhl, C. (2023): Multielectrode Arrays at Wafer-Level for Miniaturized Sensors Applications: Electrochemical Growth of Ag/AgCl Reference Electrodes. In: *Sensors (Article)*. DOI:10.3390/s23136130. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165096312&doi=10.3390%2fs23136130&partnerID=40&md5=f2818852d4044310ac9b27eef829878a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165096312&doi=10.3390%2fs23136130&partnerID=40&md5=f2818852d4044310ac9b27eef829878a)
- Suawa, P.F., Halbinger, A., Jongmanns, M., Reichenbach, M. (2023): Noise-Robust Machine Learning Models for Predictive Maintenance Applications. In: *IEEE Sensors Journal (Article)*. DOI:10.1109/JSEN.2023.3273458. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159812391&doi=10.1109%2fjsen.2023.3273458&partnerID=40&md5=e3f39b96d643e5156e88b9e5117ea6c4](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159812391&doi=10.1109%2fjsen.2023.3273458&partnerID=40&md5=e3f39b96d643e5156e88b9e5117ea6c4)
- Assafo, M., Städter, J.P., Meisel, T., Langendörfer, P. (2023): On the Stability and Homogeneous Ensemble of Feature Selection for Predictive Maintenance: A Classification Application for Tool Condition Monitoring in Milling. In: *Sensors (Article)*. DOI:10.3390/s23094461. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159157438&doi=10.3390%2fs23094461&partnerID=40&md5=e66927564c3845db5e7b5a9eff5e12e4](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159157438&doi=10.3390%2fs23094461&partnerID=40&md5=e66927564c3845db5e7b5a9eff5e12e4)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

- Santos-Carballal, D., Lupan, O., Magariu, N., Ababii, N., Krüger, H., Bodduluri, M.T., de Leeuw, N.H., Hansen, S., Adelung, R. (2023): Al₂O₃/ZnO composite-based sensors for battery safety applications: An experimental and theoretical investigation. In: Nano Energy (Article). DOI:10.1016/j.nanoen.2023.108301. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149365935&doi=10.1016%2fj.nanoen.2023.108301&partnerID=40&md5=4e6f8483a6603a794a2de5ebd91fb858](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149365935&doi=10.1016%2fj.nanoen.2023.108301&partnerID=40&md5=4e6f8483a6603a794a2de5ebd91fb858)
- Gojdka, B., Cichon, D., Stahl-Offergeld, M., Schroder, D., Clausen, N., Hedayat, C., Hohe, H.-P., Lisec, T. (2023): Fully Integrated Back-Biased 3d Hall Sensor with Wafer-Level Integrated Permanent Micromagnets. In: Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS) (Conference Paper). DOI:10.1109/MEMS49605.2023.10052184. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149880367&doi=10.1109%2fMEMS49605.2023.10052184&partnerID=40&md5=434c3e3af8f6ae6fc9a986c4d3e1fdc2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149880367&doi=10.1109%2fMEMS49605.2023.10052184&partnerID=40&md5=434c3e3af8f6ae6fc9a986c4d3e1fdc2)
- Nsubuga, L., Duggen, L., Marcondes, T.L., Høegh, S., Lofink, F., Meyer, J., Rubahn, H.-G., de Oliveira Hansen, R. (2023): Gas Adsorption Response of Piezoelectrically Driven Microcantilever Beam Gas Sensors: Analytical, Numerical, and Experimental Characterizations. In: Sensors (Article). DOI:10.3390/s23031093. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147895313&doi=10.3390%2fs23031093&partnerID=40&md5=42afffddecfff8461defb22708ace23e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147895313&doi=10.3390%2fs23031093&partnerID=40&md5=42afffddecfff8461defb22708ace23e)
- Meyns, Michaela; Dietz, Frank; Weinhold, Carin-Sonja; Züge, Heiko; Finckh, Saskia; Gerdts, Gunnar (2023): Multi-feature round silicon membrane filters enable fractionation and analysis of small micro- and nanoplastics with Raman spectroscopy and nano-FTIR. In: Analytical methods (Article). DOI:10.1039/d2ay01036d. Link: [J1https://publica.fraunhofer.de/entities/publication/054aebbf-2a35-4377-b23f-13c650ca5806/details](https://publica.fraunhofer.de/entities/publication/054aebbf-2a35-4377-b23f-13c650ca5806/details)
- Oehler, F.F., Graule, A., Kücher, S., Roth, T., Adam, A., Li, J., Ronge, E., Mörtel, R., Jossen, A. (2023): Multi-Reference Electrode Lithium-Ion Pouch Cell Design for Spatially Resolved Half-Cell Potential and Impedance Measurements. In: Journal of the Electrochemical Society (Article). DOI:10.1149/1945-7111/ad048d. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179855283&doi=10.1149%2f1945-7111%2fad048d&partnerID=40&md5=c254d8cfd5a8c00008110486ed78b97d](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85179855283&doi=10.1149%2f1945-7111%2fad048d&partnerID=40&md5=c254d8cfd5a8c00008110486ed78b97d)
- Pascal, Y., Daschner, F., Mönch, S., Liserre, M., Höft, M., Quay, R. (2023): Online die temperature measurement using S-parameters in GaN-based power converters. In: Microelectronics Reliability (Article). DOI:10.1016/j.microrel.2023.115085. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174711823&doi=10.1016%2fj.microrel.2023.115085&partnerID=40&md5=e6e52f7cf44461c38e454ea146e37b61](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85174711823&doi=10.1016%2fj.microrel.2023.115085&partnerID=40&md5=e6e52f7cf44461c38e454ea146e37b61)
- Samadi, M., Schmalz, J., Meyer, J.M., Lofink, F., Gerken, M. (2023): Phononic-Crystal-Based SAW Magnetic-Field Sensors. In: Micromachines (Article). DOI:10.3390/mi14112130. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178115872&doi=10.3390%2fmi14112130&partnerID=40&md5=e4391ae2207be3900627eb9349f5874c](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178115872&doi=10.3390%2fmi14112130&partnerID=40&md5=e4391ae2207be3900627eb9349f5874c)
- Hoffmann, J., Roldan-Vasco, S., Krüger, K., Niekief, F., Hansen, C., Maetzler, W., Orozco-Aroyave, J.R., Schmidt, G. (2023): Pilot Study: Magnetic Motion Analysis for Swallowing Detection Using MEMS Cantilever Actuators. In: Sensors (Article). DOI:10.3390/s23073594. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152348395&doi=10.3390%2fs23073594&partnerID=40&md5=26f8bcc9adc88bc1f0e3de299f9bfe38](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152348395&doi=10.3390%2fs23073594&partnerID=40&md5=26f8bcc9adc88bc1f0e3de299f9bfe38)
- Schmitt, P., Gojdka, B., Lisec, T., Kroll, M., Hoffmann, M. (2023): SOI Integrated Micromagnets for Mechanical Magnetic Field Detection. In: IEEE Sensors Letters (Article).

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

DOI:10.1109/LSENS.2023.3308125. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168711926&doi=10.1109%2fLSENS.2023.3308125&partnerID=40&md5=785cf4abcfb7e46e30fbaf010b7b4c34](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168711926&doi=10.1109%2fLSENS.2023.3308125&partnerID=40&md5=785cf4abcfb7e46e30fbaf010b7b4c34)

- Schröder, S., Ababii, N., Brînză, M., Magariu, N., Zimoch, L., Bodduluri, M.T., Strunskus, T., Adelung, R., Faupel, F., Lupan, O. (2023): Tuning the Selectivity of Metal Oxide Gas Sensors with Vapor Phase Deposited Ultrathin Polymer Thin Films. In: *Polymers* (Article). DOI:10.3390/polym15030524. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147975942&doi=10.3390%2fpolym15030524&partnerID=40&md5=d7d62dadeaf64ed9be046acf4bebc4f5](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147975942&doi=10.3390%2fpolym15030524&partnerID=40&md5=d7d62dadeaf64ed9be046acf4bebc4f5)
- Niekiel, M.F., Meyer, J.M., Lewitz, H., Kittmann, A., Nowak, M.A., Lofink, F., Meyners, D., Zollondz, J.-H. (2023): What MEMS Research and Development Can Learn from a Production Environment. In: *Sensors* (Article). DOI:10.3390/s23125549. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164012103&doi=10.3390%2fs23125549&partnerID=40&md5=b2abf5ebacd1cd9e08696f5b81d7447e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164012103&doi=10.3390%2fs23125549&partnerID=40&md5=b2abf5ebacd1cd9e08696f5b81d7447e)
- Tschoban, C., Perlwitz, P., Hamani, J., Potter, H., Marques, J., Kallmayer, C., Ndip, I., Schneider-Ramelow, M. (2023): 3D Comform Radar System for Detection of Motion and Falls in Spatial Application. In: *2023 Smart Systems Integration Conference and Exhibition, SSI 2023* (Conference Paper). DOI:10.1109/SSI58917.2023.10387765. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184812434&doi=10.1109%2fSSI58917.2023.10387765&partnerID=40&md5=c9fc90daea46c46c44d07113b5719583](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184812434&doi=10.1109%2fSSI58917.2023.10387765&partnerID=40&md5=c9fc90daea46c46c44d07113b5719583)
- Chorchos, L., Szostkiewicz, L., Ledentsov, N., Bottger, G., Turkiewicz, J.P. (2023): 6 Core fiber and VCSEL based interferometer sensor for motion or vibration monitoring. In: *Optics and Laser Technology* (Article). DOI:10.1016/j.optlastec.2023.109249. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147604950&doi=10.1016%2fj.optlastec.2023.109249&partnerID=40&md5=ba43ee0e7bad169830924db6435f1dc7](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147604950&doi=10.1016%2fj.optlastec.2023.109249&partnerID=40&md5=ba43ee0e7bad169830924db6435f1dc7)
- Greco, G., Elia, G.A., Hermida-Merino, D., Hahn, R., Raoux, S. (2023): A Direct Real-Time Observation of Anion Intercalation in Graphite Process and Its Fully Reversibility by SAXS/WAXS Techniques. In: *Small Methods* (Article). DOI:10.1002/smt.202201633. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150503634&doi=10.1002%2fsmt.202201633&partnerID=40&md5=2939f5d7fd9dd57e8922936ae110d89a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150503634&doi=10.1002%2fsmt.202201633&partnerID=40&md5=2939f5d7fd9dd57e8922936ae110d89a)
- Rashidi, A., Saccher, M., Karuthedath, C.B., Sebastian, A.T., Savoia, A.S., Lavigne, F., Stubbe, F., Dekker, R., Giagka, V. (2023): An Ultrasonically Powered System Using an AlN PMUT Receiver for Delivering Instantaneous mW-Range DC Power to Biomedical Implants. In: *IEEE International Ultrasonics Symposium, IUS* (Conference Paper). DOI:10.1109/IUS51837.2023.10306557. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178644351&doi=10.1109%2fIUS51837.2023.10306557&partnerID=40&md5=edb9de053789c2c1a2834803315d057f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85178644351&doi=10.1109%2fIUS51837.2023.10306557&partnerID=40&md5=edb9de053789c2c1a2834803315d057f)
- Rashidi, A., Rivandi, H., Grubor, M., Agostinho, A., Sadio, V., Santos, M., Serdijn, W., Giagka, V. (2023): Delta-Sigma Control Loop For Energy-Efficient Electrical Stimulation with Arbitrary-Shape Stimuli. In: *BioCAS 2023 - 2023 IEEE Biomedical Circuits and Systems Conference, Conference Proceedings* (Conference Paper). DOI:10.1109/BioCAS58349.2023.10388625. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184978623&doi=10.1109%2fBioCAS58349.2023.10388625&partnerID=40&md5=d7ae661107e7f5ece6767ace908ad5a1](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184978623&doi=10.1109%2fBioCAS58349.2023.10388625&partnerID=40&md5=d7ae661107e7f5ece6767ace908ad5a1)
- Pola, M., Giagka, V., Serdijn, W.A., Demarchi, D., Rashidi, A. (2023): Galvanic Brain-Coupled Communication Among Freely Floating Micro-Scale Implants. In: *BioCAS 2023 - 2023 IEEE Biomedical Circuits and Systems Conference, Conference Proceedings* (Conference Paper).

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**

DOI:10.1109/BioCAS58349.2023.10388903. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184979814&doi=10.1109%2fBioCAS58349.2023.10388903&partnerID=40&md5=993c1b16539c3cda7d000ac742eef3c7](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184979814&doi=10.1109%2fBioCAS58349.2023.10388903&partnerID=40&md5=993c1b16539c3cda7d000ac742eef3c7)

- Zamora, V., Preußler, P., Herter, J., Marx, S., Schröder, H., Schneider-Ramelow, M. (2023): On-chip integration of optical microbottles for biosensing. In: Progress in Biomedical Optics and Imaging - Proceedings of SPIE (Conference Paper). DOI:10.1117/12.2650422. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160214433&doi=10.1117%2f12.2650422&partnerID=40&md5=8c7e9648292711a0891c5f01fd60d6fd](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160214433&doi=10.1117%2f12.2650422&partnerID=40&md5=8c7e9648292711a0891c5f01fd60d6fd)
- Beemer, M., Dils, C., Nachtigall, T. (2023): Second Skins: Exploring the Challenges and Opportunities for Designing Adaptable Garments Using E-Textile †. In: Engineering Proceedings (Article). DOI:10.3390/engproc2023030009. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172908750&doi=10.3390%2fengproc2023030009&partnerID=40&md5=6046b9282c755ce9d52a1033c9617913](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85172908750&doi=10.3390%2fengproc2023030009&partnerID=40&md5=6046b9282c755ce9d52a1033c9617913)
- Kappert, Holger;Schopferer, Sebastian;Saeidi, Nooshin;Döring, Ralf;Ziesche, Steffen;Olowinsky, Alexander;Naumann, Falk;Jägle, Martin;Spanier, Malte;Grabmaier, Anton (2023): Sensor Systems for Extremely Harsh Environments. In: IMASSource Proceedings (Article). DOI:10.4071/001c.89680. Link: [J1https://publica.fraunhofer.de/entities/publication/852ad038-2552-456a-a12a-ad1309ad57f1/details](https://publica.fraunhofer.de/entities/publication/852ad038-2552-456a-a12a-ad1309ad57f1/details)
- Henke, M., Baeuscher, M., Zoschke, K., Ali-Roder, J., Keller, A., Mukhopadhyay, B., MacKowiak, P., Schneider-Ramelow, M. (2023): Simulation and Fabrication of SU-8 Microfluidics Mixers capped by Wafer-to-Wafer Bonding. In: 2023 IEEE BioSensors Conference, BioSensors 2023 - Proceedings (Conference Paper). DOI:10.1109/BioSensors58001.2023.10281100. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85175950367&doi=10.1109%2fBioSensors58001.2023.10281100&partnerID=40&md5=cd8965ed0d9c9a8cfea300afcfe8b3be](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85175950367&doi=10.1109%2fBioSensors58001.2023.10281100&partnerID=40&md5=cd8965ed0d9c9a8cfea300afcfe8b3be)
- Spath, J.M., Kouri, K.K., Holzapfel, L., Thewes, R., Giagka, V. (2023): Stand-Alone Broad Frequency Range Charge-Balancing System for Neural Stimulators. In: BioCAS 2023 - 2023 IEEE Biomedical Circuits and Systems Conference, Conference Proceedings (Conference Paper). DOI:10.1109/BioCAS58349.2023.10388758. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184979442&doi=10.1109%2fBioCAS58349.2023.10388758&partnerID=40&md5=ce9b113a6c0ca573e1fa6614c06d7f53](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85184979442&doi=10.1109%2fBioCAS58349.2023.10388758&partnerID=40&md5=ce9b113a6c0ca573e1fa6614c06d7f53)
- Kallmayer, C., Friedberger, A., Helwig, A., Wagner, S., Marques, J., Petiot, C., Lefebure, P., Machunze, W. (2023): Stretchable Electronics for Large Area Sensor Skin. In: NordPac 2023 - Annual Microelectronics and Packaging Conference (Conference Paper). DOI:10.23919/NordPac58023.2023.10186225. Link: [J1https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168252316&doi=10.23919%2fNordPac58023.2023.10186225&partnerID=40&md5=992c179223f470707036b8cd62770b6a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168252316&doi=10.23919%2fNordPac58023.2023.10186225&partnerID=40&md5=992c179223f470707036b8cd62770b6a)

Forschungsfabrik Mikroelektronik Deutschland – Sensorsysteme
**Publications from the Technology Platform “Sensor Systems” of the Research Fab
Microelectronics Germany (2023)**