

## Publikationen

- (2020): Wafer composite and method for producing semiconductor components.
- (2020): Silicon carbide semiconductor device and a method for forming a silicon carbide semiconductor device.
- (2019): Method of manufacturing a semiconductor device having graphene material.
- (2019): Semiconductor devices and methods for forming semiconductor devices.
- (2019): Sensorik mit 2D-Materialien. In: Technologietag Angewandte Sensorik, Coburg.
- (2019): Semiconductor device including a heat sink structure.
- (2019): Method of manufacturing semiconductor devices by bonding a semiconductor disk on a base substrate, composite wafer and semiconductor device.
- (2019): Fahrzeugbeleuchtungsanordnung, Leuchtmitteltreiberschaltung und Verfahren zur Bereitstellung von Informationen zur Bestimmung eines Beleuchtungszustandes.
- (2019): Process for the formation of a graphene membrane component, graphene membrane component, microphone and Hall-effect sensor.
- (2019): Elektronisches Identifikationsdokument und Verfahren zur Herstellung eines elektronischen Identifikationsdokuments.
- (2019): Entwicklung einer wasserdichten LED Flächenleuchte mit direkt im Glas eingebrachtem Konvertermaterial. Poster. In: DGaO Proceedings zur 120. Jahrestagung (11.-15.06.2019; Darmstadt).
- (2019): Schichtstruktur und Verfahren zur Herstellung einer Schichtstruktur.
- (2019): Accurate Graphene-Metal Junction Characterization. In: IEEE Journal of the Electron Devices Society (J-EDS), vol. 7, pp. 219-226. DOI: 10.1109/JEDS.2019.2891516.
- (2019): Photo-acoustic gas sensor module having light emitter and detector units.
- (2019): Sensor arrangement for particle analysis and a method for particle analysis.
- (2019): Elektronische Vorrichtung.
- (2019): Development of a waterproof, high color fidelity LED Light Panel. In: 6th European Seminar on Precision Optics Manufacturing (POM19), Teisnach.
- (2018): Process for the formation of a graphene membrane component, graphene membrane component, microphone and Hall-effect sensor.
- (2018): Semiconductor device having a graphene layer, and method manufacturing thereof.
- (2018): Sensor arrangement, battery cell and energy system.
- (2018): Graphene gas sensor for measuring the concentration of carbon dioxide in gas environments.
- (2018): Semiconductor device including a phase change material.
- (2018): Method for processing a carrier and method for transferring a graphene layer.

(2018): Semiconductor package, smart card and method for producing a semiconductor package.

(2018): Verfahren zur Herstellung eines Grabenkondensators.

(2018): Glas als Verpackungsmaterial für Lebensmittel. Posterpräsentation. In: 5. Tag der Forschung, Deggendorf.

(2017): Method for processing a carrier.

(2017): Power semiconductor device including a cooling material.

(2017): Apparatus for determining a state of a rechargeable battery or of a battery, a rechargeable battery or a battery, and a method for determining a state of a rechargeable battery or of a battery.

(2017): Method of forming a graphene structure.

(2017): Hall effect sensor with graphene detection layer.

(2017): Two-dimensional material containing electronic components.

(2017): Method for manufacturing a composite wafer having a graphite core, and composite wafer having a graphite core.

(2017): Fluid sensor chip and method for manufacturing the same.

(2017): Method for making a sensor device using a graphene layer.

(2017): Characterization methods for solid thermal interface materials. In: IEEE Transactions on Components, Packaging and Manufacturing Technology, vol. 8, no. 6, pp. 1024-1031. DOI: 10.1109/TCPMT.2017.2748238.

(2017): The integration of graphene into microelectronic devices. In: Beilstein Journal of Nanotechnology, vol. 8, pp. 1056-1064. DOI: 10.3762/bjnano.8.107.

(2016): MEMS acoustic transducer, MEMS microphone, MEMS microspeaker, array of speakers and method for manufacturing an acoustic transducer.

(2016): Temperature sensor.

(2016): Electronic device.

(2016): Method for processing a carrier and an electronic component.

(2016): Composite wafer for bonding and encapsulation of a SiC-based functional layer.

(2016): Fluid sensor chip and method for manufacturing the same.

(2016): Electrical contact for graphene part.

(2016): Method for manufacturing a composite wafer having a graphite core.

(2016): Challenges in process integration of graphene for manufacturing microelectronic devices. eingeladener Vortrag. In: Graphene Week 2016, Warschau, Polen.

(2016): Self-organized growth of graphene nanomesh with increased gas sensitivity. In: Nanoscale, vol. 8, no. 34, pp. 15490-15496.

(2016): Simulations and measurements of annealed pyrolytic graphite-metal composite baseplates. In: IOP Conference Series:Materials Science and Engineering, vol. 118, no. Conference 1.

(2015): Method for manufacturing a composite wafer having a graphite core, and composite wafer having a graphite core.



(2015): Compound structure and method for forming a compound structure.

(2015): Sensor module and battery elements.

(2015): Sensorbauelement und Verfahren.

(2015): Semiconductor dies having opposite sides with different reflectivity.

(2015): Sensor package and method of manufacturing thereof.

(2015): Semiconductor device including a phase change material.

(2015): Method for making a sensor device using a graphene layer.

(2015): Going ballistic: Graphene hot electron transistors. In: Solid State Communications, vol. 224, no. December, pp. 64-75. DOI: 10.1016/j.ssc.2015.08.012.

(2015): Residual Metallic Contamination of Transferred Chemical Vapor Deposited Graphene. In: ACS Nano, vol. 9, no. 5, pp. 4776-4785. DOI: 10.1021/acsnano.5b01261.

(2014): Method for manufacturing a composite wafer having a graphite core, and composite wafer having a graphite core.

(2014): Vehicle lighting arrangement.

(2014): Method for making a sensor device using a graphene layer.

(2014): Method of processing a contact pad, method of manufacturing a contact pad, and integrated circuit element.

(2014): Integriertes Bauelement und Verfahren zur Trennung einer elektrisch leitfähigen Verbindung.

(2014): Graphene - Balancing the Elephant. Eingeladener Vortrag. In: 6. NRW Nano-Konferenz, Dortmund.

(2014): Perspectives of Graphene in Semiconductor Industry. eingeladener Vortrag. In: TNT 2014, Barcelona, Spanien.

(2014): Perspective of ICT industry on the use of graphene. Eingeladener Vortrag. In: 6th Stuttgart NanoDays Workshop, Stuttgart.

(2014): Graphene- Balancing the Elephant. Eingeladener Vortrag. In: IHP Institutsseminar, Frankfurt (Oder).

(2014): Reduced graphene oxide and graphene composite materials for improved gas sensing at low temperature. In: Faraday Discussions, vol. 173, pp. 403-414. DOI: 10.1039/c4fd00086b.

(2014): Dielectric Material Options for Integrated Capacitors. In: ECS Journal of Solid State Science and Technology, vol. 3, no. 8. DOI: 10.1149/2.0101408jss.

(2013): Method for manufacturing a composite wafer having a graphite core, and composite wafer having a graphite core.

(2013): System for separation of an electrically conductive connection.

(2013): Properties of stacked SrTiO<sub>3</sub>/Al<sub>2</sub>O<sub>3</sub> metal-insulator-metal capacitors. In: Journal of Vacuum Science & Technology B, vol. 31, no. 1. DOI: 10.1116/1.4766183.

(2012): Method of processing a semiconductor wafer or die, and particle deposition device.

(2012): Material Options for Integrated MIM Capacitors. Eingeladener Vortrag. In: WoDiM 2012, Dresden.

(2012): Metal-Insulator-Metal capacitors with ALD grown SrTiO<sub>3</sub>: Influence of Pt electrodes. In: IOP Conference Series: Materials Science and Engineering, vol. 41.



- (2012): Electrical and Morphological Properties of ALD and AVD Grown Perovskite-Type Dielectrics and Their Stacks for Metal-Insulator-Metal Applications. In: ECS Journal of Solid State Science and Technology, vol. 1, no. 1.
- (2012): Properties of atomic-vapor and atomic-layer deposited Sr, Ti, and Nb doped Ta<sub>2</sub>O<sub>5</sub> Metal-Insulator-Metal capacitors. In: Thin Solid Films, vol. 520, no. 14, pp. 4576-4579. DOI: 10.1016/j.tsf.2011.10.199.
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- (2011): CVD grown ternary high-k oxides for MIM capacitors. In: Novel High-k Applications Workshop, Dresden.
- (2011): From Graphite to Graphene. Eingeladener Vortrag. In: Infineon R&D Colloquium, München.
- (2011): ALD and AVD Grown Perovskite-type Dielectrics for Metal-Insulator-Metal Application. (Invited). In: ECS Transactions (The Electrochemical Society), vol. 41, no. 2, pp. 53-61. DOI: 10.1149/1.3633654.
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- (2011): Metal-insulator-metal capacitors with MOCVD grown Ce-Al-O as dielectric. In: Microelectronic Engineering, vol. 88, no. 7, pp. 1529-1532. DOI: 10.1016/j.mee.2011.03.044.
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- (2011): Electrical characteristics of Ti-Ta-O based MIM capacitors. In: Journal of Vacuum Science & Technology B, vol. 29, no. 1. DOI: 10.1116/1.3534020.
- (2010): Method of processing a contact pad, method of manufacturing a contact pad, and integrated circuit element.
- (2010): System for separation of an electrically conductive connection.
- (2010): Analysis of Cu oxide films on Cu by Raman spectroscopy. Eingeladener Vortrag. In: GMM Fachgruppentagung Analytik, Erlangen.
- (2010): Investigations of thermal annealing effects on electrical and structural properties of SrTaO based MIM capacitor. In: Microelectronic Engineering, vol. 87, no. 12, pp. 2561-2564. DOI: 10.1016/j.mee.2010.07.015.
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- (2006): Process for the plasma etching of materials not containing silicon.



- (2006): Verfahren zur Kompensation von Streu-/Reflexionseffekten in der Teilchenstrahlolithographie.
- (2005): Verfahren zur Seitenwandpassivierung beim Plasmaätzen.
- (2005): Method for compensating for scatter/reflection effects in particle beam lithography.
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- (2004): Kompensationsrahmen zur Aufnahme eines Substrats.
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