

Publikationen

F. Püschner, Günther Ruhl, J. Pohl, T. Spöttl (2019): Elektronisches Identifikationsdokument und Verfahren zur Herstellung eines elektronischen Identifikationsdokuments.

Günther Ruhl, T. Ullrich, Benedikt Winter, Raimund Förg, Alois Kasberger (2019): Entwicklung einer wasserdichten LED Flächenleuchte mit direkt im Glas eingebrachtem Konvertermaterial. Poster. In: DGaO Proceedings zur 120. Jahrestagung (11.-15.06.2019; Darmstadt).

Günther Ruhl, M. König (2019): Schichtstruktur und Verfahren zur Herstellung einer Schichtstruktur.

J.-M. Batke, S. Wittman, Günther Ruhl, I. Costina, M. Lemme, T. Preis, M. König, A. Gahoi (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.

A. Dehe, S. Beer, Günther Ruhl, S. Kolb, G. Beer, F. Jost, H. Theuss, R. Schaller (2019): Photo-acoustic gas sensor module having light emitter and detector units.

G. Poeppel, Günther Ruhl, T. Hirsch, H. Roedig (2019): Sensor arrangement for particle analysis and a method for particle analysis.

Günther Ruhl, M. König (2019): Elektronische Vorrichtung.

Günther Ruhl, M. Koenig (2018): Process for the formation of a graphene membrane component, graphene membrane component, microphone and Hall-effect sensor.

T. Zimmer, W. Lippert, Günther Ruhl, H.-J. Schulze (2018): Semiconductor device having a graphene layer, and method manufacturing thereof.

K. Elian, Günther Ruhl, F. Darrer, S. Chiang, T. Mueller, M. Vaupel, S. Auer, J. Dangelmaier, H. Theuss, M. Fries, M. Rose, Wee, T. F. D. (2018): Sensor arrangement, battery cell and energy system.

Günther Ruhl, T. Hirsch, A. Zoepfl (2018): Graphene gas sensor for measuring the concentration of carbon dioxide in gas environments.

H.-J. Timme, Günther Ruhl, H.-J. Schulze (2018): Semiconductor device including a phase change material.

Günther Ruhl, M. Koenig (2018): Method for processing a carrier and method for transferring a graphene layer.

T. Spoettl, Stampka P., Günther Ruhl, F. Püschner (2018): Semiconductor package, smart card and method for producing a semiconductor package.

Günther Ruhl, K.-O. Subke, R. Berger (2018): Verfahren zur Herstellung eines Grabenkondensators.

H.-J. Timme, R. Otremba, Günther Ruhl, J. Mahler, H.-J. Schulze (2017): Power semiconductor device including a cooling material.

K. Elian, Günther Ruhl, G. Meyer-Berg, J. Hoegerl, T. Mueller, M. Vaupel, M. Fies, J. Dangelmaier, H. Theuss (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.

P. Irsigler, Günther Ruhl, H.-J. Schulze (2017): Method of forming a graphene structure.

A. Dehe, M. Eckinger, Günther Ruhl, S. Kolb (2017): Hall effect sensor with graphene detection layer.

Günther Ruhl, W. Lehnert, R. Berger (2017): Two-dimensional material containing electronic components.

R. Foerg, Günther Ruhl, Kersten Kellermann, R. Rupp, W. Lehnert, M. Sommer, R. Berger, C. Rottmair, H.-J. Schulze, H. Gruber, A. Mauder (2017): Method for manufacturing a composite wafer having a graphite core, and composite wafer having a graphite core.

Günther Ruhl, F. Bachl (2017): Fluid sensor chip and method for manufacturing the same.

I. Escher-Poeppel, K. Elian, Günther Ruhl, H. Theuss (2017): Method for making a sensor device using a graphene layer.

P. Schoderböck, Günther Ruhl, M. Mengel, T. Lampke, F. Streb, C. Kasztelan, D. Schweitzer (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.

D. Neumaier, Günther Ruhl, S. Wittmann, M. König (2017): The integration of graphene into microelectronic devices. In: Beilstein Journal of Nanotechnology, vol. 8, pp. 1056-1064. DOI: 10.3762/bjnano.8.107.

P. Schoderböck, Günther Ruhl, M. Mengel, T. Lampke, F. Streb, C. Kasztelan, D. Schweitzer (2017): Characterization Methods for Solid Thermal Interface Materials. In: IEEE Transactions on Components, Packaging and Manufacturing Technology, vol. PP, no. 99, pp. 1-8. DOI: 10.1109/TCPMT.2017.2748238.

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

J. Laven, Günther Ruhl, C. Kegler, J. Mahler, H.-J. Schulze (2016): Temperature sensor.

Günther Ruhl, M. Koenig (2016): Electronic device.

Günther Ruhl, K. Pruegl (2016): Method for processing a carrier and an electronic component.

Günther Ruhl, R. Rupp, W. Lehnert, R. Berger, H.-J. Schulze, A. Mauder (2016): Composite wafer for bonding and encapsulation of a SiC-based functional layer.

Günther Ruhl, F. Bachl (2016): Fluid sensor chip and method for manufacturing the same.

R. Foerg, Günther Ruhl (2016): Electrical contact for graphene part.

R. Foerg, Günther Ruhl, W. Lehnert, R. Berger, H.-J. Schulze, H. Gruber, A. Mauder (2016): Method for manufacturing a composite wafer having a graphite core.

J.-M. Batke, Günther Ruhl, M. Lemme, M. König (2016): Self-organized growth of graphene nanomesh with increased gas sensitivity. In: Nanoscale, vol. 8, no. 34, pp. 15490-15496.

A. Schubert, Günther Ruhl, S. Flemmig, H. Zeidler, T. Lampke, M. Penzel, F. Streb, I. Todaro, R. Squatrito (2016): Simulations and measurements of annealed pyrolytic graphite-metal composite baseplates. In: IOP Conference Series:Materials Science and Engineering, vol. 118, no. Conference 1.

R. Foerg, Günther Ruhl, Kersten Kellermann, R. Rupp, W. Lehnert, M. Sommer, R. Berger, C. Rottmair, H.-J. Schulze, H. Gruber, A. Mauder (2015): Method for manufacturing a composite wafer having a graphite core, and composite wafer having a graphite core.

Günther Ruhl, R. Rupp, W. Lehnert, R. Berger (2015): Compound structure and method for forming a compound structure.

K. Elian, Günther Ruhl, H. Theuss (2015): Sensor module and battery elements.

I. Escher-Poeppel, K. Elian, Günther Ruhl, H. Theuss (2015): Sensorbauelement und Verfahren.

Günther Ruhl, M. Vaupel (2015): Semiconductor dies having opposite sides with different reflectivity.

K. Elian, Günther Ruhl, H. Theuss (2015): Sensor package and method of manufacturing thereof.



- H.-J. Timme, Günther Ruhl, H.-J. Schulze (2015): Semiconductor device including a phase change material.
- I. Escher-Poeppel, K. Elian, Günther Ruhl, H. Theuss (2015): Method for making a sensor device using a graphene layer.
- G. Lippert, F. Driussi, J. Dabrowski, V. Di Leece, Günther Ruhl, W. Mehr, S. Vaziri, M. Lemme, M. Östling, A. Gnudi, M. König, G. Lupina, A. Smith, S. Venica, M. Belete (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.
- J. Kitzmann, O. Luxenhofer, A. Krajewska, W. Strupinski, G. Zoth, Günther Ruhl, W. Mehr, I. Costina, S. Vaziri, M. Lukosius, I. Pasternak, M. Lemme, C. Wenger, M. Östling, A. Wolff, S. Kataria, G. Lupina, A. Gahoi (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.
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- M. Hammer, Günther Ruhl (2014): Vehicle lighting arrangement.
- I. Escher-Poeppel, K. Elian, Günther Ruhl, H. Theuss (2014): Method for making a sensor device using a graphene layer.
- D. Groteloh, M. Melzl, M. Hammer, A. Strasser, Günther Ruhl, R. Goellner (2014): Method of processing a contact pad, method of manufacturing a contact pad, and integrated circuit element.
- M. Hammer, R. Kainzbauer, Günther Ruhl (2014): Integriertes Bauelement und Verfahren zur Trennung einer elektrisch leitfähigen Verbindung.
- F.-M. Matysik, Günther Ruhl, A. Zöpfl, T. Hirsch, M. König, M.-M. Lemberger (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.
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- M. Hammer, R. Kainzbauer, Günther Ruhl (2013): System for separation of an electrically conductive connection.
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