

Patents and Scientific Publications

das-Nano has **19 patents** in different technological fields, such as terahertz technology, artificial intelligence, and nanotechnology. Of these patents, **12 explicitly protect** the innovations carried out in the field of **terahertz technology**.



[Graphene-Based Electrodes for Silicon Heterojunction Solar Cell Technology](#)

Torres, I., Fernández, S., Fernández-Vallejo, M., Arnedo, I. and Gandía, JJ. Materials, 14(17), 4833 (2021).



[Towards standardisation of contact and contactless electrical measurements of CVD graphene at the macro-, micro-and nano-scale.](#)

Melios, C., Huang, N., Callegaro, L., Centeno, A., Cultrera, A., Cordon, A., Panchal, V., Arnedo, I., Redo-Sanchez, A., Etayo, D., Fernandez, M., Rozhko, S., Txoperena, O., Zurutuza, A. & Kazakova, O. Scientific Reports, 10(1), 1-11 (2020).



[Good Practice Guide: Electrical characterisation of graphene using non-contact and high-throughput methods](#)

Edited by: Fabricius, A., Cultrera, A., Catanzaro, A. Contributions from: Catanzaro, A., Huang, NJ., Melios, C., Hao, L., Gallop, J., Arnedo, I., Etayo, D., Taboada, E., Cultrera, A. and Kazakova, O. ISBN: 978-88-945324-2-5 (2020).



[Transparent electrodes based on graphene](#)

Fernández S, Gandía JJ, Inés A, Arnedo I, Boscá A, Pedrós J., Martínez J, Calle F. & Cárabe J., Nanotechnol Adv Mater Sci Volume 2(3): 1–3 (2019).



[Mapping the conductivity of graphene with Electrical Resistance Tomography](#)

Cultrera, A., Serazio, D., Zurutuza, A., Centeno, A., Txoperena, O., Etayo, D., Cordon, A., Redo-Sanchez, A., Arnedo, I., Ortolano, M. & Callegaro, L. Scientific Reports, 9(1), 1-9 (2019).



[Advanced Graphene-Based Transparent Conductive Electrodes for Photovoltaic Applications](#)

Fernández, S., Boscá, A., Pedrós, J., Inés, A., Fernández, M., Arnedo, I., González, J.P., de la Cruz, M., Sanz, D., Molinero, A., Fandan, R.S., Pampillón, M.Á., Calle, F., Gandía, J.J., Cárabe, J., & Martínez, J. Micromachines, 10(6), 402 (2019).



[Quality assessment of terahertz time-domain spectroscopy transmission and reflection modes for graphene conductivity mapping](#)

Mackenzie, D. M., Whelan, P. R., Bøggild, P., Jepsen, P. U., Redo-Sanchez, A., Etayo, D., Fabricius, N. & Petersen, D. H. Optics express, 26(7), 9220-9229 (2018).



[Mapping the electrical properties of large-area graphene](#)

Bøggild, P., Mackenzie, D. M., Whelan, P. R., Petersen, D. H., Buron, J. D., Zurutuza, A., Gallop, J., Hao, L. & Jepsen, P. U. 2D Materials, 4(4), 042003 (2017).