

# LIST OF CONTRIBUTIONS TO NATIONAL AND INTERNATIONAL CONGRESSES 2017

1. M. Vellvehi, X. Perpiñà, X. Jordà.  
**Análisis de los Mecanismos Físicos de Fallo en Dispositivos Microelectrónicos mediante Termografía Infrarroja Lock-in.**  
**IMPhocus, Congreso de Tecnologías Fotónicas; International**
2. M. Fernández; X. Perpiñà; M. Vellvehi; D. Sánchez; X. Jordà; J. Millán; T. Cabeza; S. Llorente.  
**Analysis of bidirectional switch solutions based on different power devices**  
**Spanish Conference on Electron Devices (CDE); International**
3. M. Cabello; V. Soler; J. Montserrat; P. Godignon; A. Varghese; J-M. Decams.  
**Analysis of ZrxSiyOz as High-K Dielectric for 4H-SiC MOSFETs.**  
**International Conference on Silicon Carbides and Related Materials; International**
4. G. Gómez; I. Vila; S. Hidalgo; G. Pellegrini.  
**Characterization of small pitch 3D sensors from CNM.**  
**12th Trento Workshop on Advanced Silicon Radiation Detectors; International**
5. V. Soler; M. Cabello; J. Montserrat; A. Mihaila; E. Bianda; J. Rebollo; P. Godignon.  
**Comparison of High Voltage SiC Rectifiers.**  
**Seminario Anual de Automática, electrónica industrial e Instrumentación (SAAEI); National**
6. V. Soler; M. Cabello; V. Banu; J. Montserrat; J. Rebollo; P. Godignon.  
**Complementary P-Channel and N-Channel SiC MOSFETs for CMOS Integration.**  
**International Conference on Silicon Carbides and Related Materials; International**
7. J. L. Gálvez; X. Perpiñà; M. Vellvehí; D. Sánchez; X. Jordà; J. Millán.  
**Computation method and comparison of semiconductor power losses within bidirectional switches (BDS).**  
**Spanish Conference on Electron Devices (CDE); International**
8. Lucía Ré; Pablo Fernández-Martínez; David Flores; Salvador Hidalgo; David Quirion; Miguel Ullán.  
**Electrical Characterization and Radiation Hardness of a New 3D Vertical JFET Transistor.**  
**Spanish Conference on Electron Devices (CDE); International**
9. R. Durà; J. Pallarès; R. Quijada; X. Formatjé; S. Hidalgo; F. Serra-Graells.

**Fast and Robust Topology-Based Logic Gate Identification for Automated IC Reverse Engineering.**

**International Symposium for Testing and Failure Analysis; International**

10. M. Cabello; V. Soler; J. Montserrat; J. Rebollo; P. Godignon; J. Millan.  
**High channel mobility in 4H-SiC N-MOSFET using N<sub>2</sub>O oxidation combined with Boron diffusion treatment.**  
**Spanish Conference on Electron Devices (CDE), 2017; International**
11. Viorel Banu; Maxime Berthou; Josép Montserrat; Xavier Jordà; Philippe Godignon.  
**Impact of layout on the surge current robustness of 1.2 KV SiC diodes.**  
**International Semiconductor Conference; International**
12. Rius, G.; Prats-Alfonso, E.; Villa, R.; Godignon, P.  
**Interface Reactivity and Catalysis in Graphene on SiC to Unlock Exfoliation Mechanism by Electrochemical Bubbling Method.**  
**European Graphene Forum - EGF; International**
13. J Llobet; X Borrísé; R Koops; M Van Veghel; G Rius; F Pérez-Murano.  
**Large arrays of suspended silicon nanowires defined by ion beam implantation.**  
**International Conference on Micro and Nanoengineering; International**
14. M. Vellvehi; X. Perpiñà; J. León; D. Sánchez; X. Jordà.  
**Lock-in Infrared Thermography: a tool to locate and analyse failures in power devices.**  
**Spanish Conference Electron Devices (CDE); International**
15. Rius, G.; Pérez-Murano, F.; Godignon, P.  
**Micro and Nanofabrication for Graphene Electronics.**  
**Workshop: Nanodevices based on graphene and 2D systems; International**
16. P. Godignon; V. Soler; M. Cabello; J. Montserrat; J. Rebollo; L. Knoll; E. Bianda; A. Mihaila.  
**New trends in high voltage MOSFET based on wide band gap materials.**  
**International Semiconductor Conference; International**
17. Rius, G.; Prats-Alfonso, E.; Villa, R.; Godignon, P.  
**Novel one-step method for the delamination of epitaxial graphene on SiC.**  
**Graphene Conference series, the largest European Event in Graphene and 2D Materials; International**
18. J.M. Raffí; G. Pellegrini; P. Godignon; D. Quirion; S. Hidalgo; O. Matilla; A. Fontserè; B. Molas; K. Takakura; I. Tsunoda; M. Yoneoka; D. Pothin; P. Fajardo.

**Four-quadrant Silicon and Silicon Carbide Photodiodes for Beam Position Monitor Application: Electrical Characterization and Electron Irradiation Effects.**

**International Conference on Position Sensitive Detectors; International**

19. Ballestar; L. Serrano; A. García-García; G Rius; M. R. Ibarra; J. M. De Teresa; P. Godignon.

**Graphene for high-performance electronic devices.**

**Graphene Week; International**

20. L. Méndez; J.J. Gonzalez-Murillo; M. Cabello; J. Jaramillo-Villegas; I. Bernat; O. Castillo; M. Moreno-Sereno; A. Romano-Rodriguez.

**Optofluidic System for fluorescence cytometry.**

**Spanish Conference on Electron Devices (CDE); International**

21. M. Fernández; X. Perpiñà; M. Vellvehi; X. Jordà.

**Short-Circuit Capability in P-GaN HEMTs and GaN MISHEMTs.**

**29th International Symposium on Power Semiconductor Devices and ICs (ISPSD); International**

22. Anton J. Bauer; Peter Friedrichs; Peder Bergman; Adolf Schöner; Andrei Mihaila; Philippe Godignon; Antonio de la Cruz; Christian Sommer; Itziar Kortazar; Jose Maria Cuartas Alonso.

**SiC Power Electronics Technology for Energy Efficient Devices (SPEED) Introduction Overview. High Quality Substrate Material for High Power Application; High Voltage SiC Devices for Power Transmission Application; Solid State Transformers with Increased Functionalities and SiC in Future Wind Power Applications.**

**International Conference on Silicon Carbides and Related Materials; International**

23. G Rius; L Evangelio; F Pérez-Murano; P Godignon.

**Spontaneous vertical-horizontal alternate-orientation and directed self-assembly of cylindrical block copolymers for the nanopatterning of epitaxial graphene on silicon carbide.**

**International Conference on Micro and Nanoengineering; International**

24. García-García; G Rius; A. Ballestar; L. Serrano; M. J. Pérez; E. Prats-Alfonso; R. Villa; J. M. De Teresa; M. R. Ibarra; P. Godignon.

**Overcoming technological issues of graphene grown on SiC.**

**International Symposium on Epitaxial Graphene; International**

25. García-García; A. Ballestar; L. Serrano; G Rius; M. R. Ibarra; J. M. De Teresa; P. Godignon.

**Synthesis of epitaxial graphene on SiC for electronic applications.**

**Workshop: Nanodevices based on graphene and 2D systems; International**

26. García-García; A. Ballestar; L. Serrano; G Rius; M. R. Ibarra; J. M. De Teresa; P. Godignon.

**Synthesis of epitaxial graphene on SiC for graphene-based electronics.**  
**Graphene Conference series, the largest European Event in Graphene and 2D Materials; International**

27. Inés Serrano-Esparza; Soraya Sangiao; A. Ballestar; L. Serrano-Ramón; A. García-García; Philippe Godignon; A. Zurutuza; A. Centeno; José María De Teresa.

**Weak localization in wafer-scale graphene.**  
**Workshop: Nanodevices based on graphene and 2D systems; International**

28. M. Fernández, X. Perpiñà, M. Vellvehi and X. Jordà, T. Cabeza and S. Llorente.

**Analysis of Solid State Relay Solutions Based on Different Semiconductor Technologies.**  
**European Power Electronics Conference (EPE'17-ECCE EUROPE); International**