

## **LIST OF JOURNAL PAPERS 2017**

1 - Rafí J.M., Pellegrini G., Quirion D., Hidalgo S., Godignon P., O. Matilla, J. Fontserè A., Molas B., Pothin D., Fajardo P.

**“10  $\mu\text{m}$ -THICK FOUR-QUADRANT TRANSMISSIVE SILICON PHOTODIODES FOR BEAM POSITION MONITOR APPLICATION: ELECTRICAL CHARACTERIZATION AND GAMMA IRRADIATION EFFECTS”.**

**JOURNAL OF INSTRUMENTATION. Vol. 12, C01004, 2017.**

**DOI: [10.1088/1748-0221/12/01/C01004](https://doi.org/10.1088/1748-0221/12/01/C01004)**

2 - Florentin M., Cabello M., Rebollo J., Montserrat J., Brosselard P., Henry A., Godignon P.

**“AI-IMPLANTED ON-AXIS 4H-SIC MOSFETS”.**

**SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol. 32, 201 – 206, 2017.**

**DOI: [10.1088/1361-6641/32/3/035006](https://doi.org/10.1088/1361-6641/32/3/035006)**

3 - Fernández-Martínez P., Flores D., Hidalgo S., Jordà X., Perpiñà X., Quirion D., Ré L., Ullán M., Vellvehí M.

**“A NEW VERTICAL JFET POWER DEVICE FOR HARSH RADIATION ENVIRONMENTS”.**

**ENERGIES. vol: 10, 739 – 747, 2017.**

**DOI: [10.3390/en10020256](https://doi.org/10.3390/en10020256)**

4 - Cartiglia N., Staiano A., Sola V., Arcidiacono R., Cirio R., Cenna F., Ferrero M., Monaco V., Mulargia R., Obertino M., Ravera F., Sacchi R., Arcidiacono R., Cirio R., Cenna F., Ferrero.

**“BEAM TEST RESULTS OF A 16 ps TIMING SYSTEM BASED ON ULTRA-FAST SILICON DETECTORS”.**

**NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT. Vol: 850, 83 – 88, 2017**

**DOI: [10.1016/j.nima.2017.01.021](https://doi.org/10.1016/j.nima.2017.01.021)**

5 - Niu P., Asturias-Arribas L., Jordà X., Goñi A.R., Roig A., Gich M., Fernández-Sánchez C.

**“CARBON-SILICA COMPOSITES TO PRODUCE HIGHLY ROBUST THIN-FILM ELECTROCHEMICAL MICRODEVICES”.**

**ADVANCED MATERIALS TECHNOLOGIES. Vol: 2, 1700163, 2017.**

**DOI: [10.1002/admt.201700163](https://doi.org/10.1002/admt.201700163)**

6 - Lange J., Carulla M., Cavallaro E., Chytka L., Davis P.M., Flores D., Förster F., Grinstein S., Hidalgo S., Komarek T., Kramberger G., Mandi, I., Merlos A., Nozka L., Pellegrini G.

**“GAIN AND TIME RESOLUTION OF 45  $\mu\text{m}$  THIN LOW GAIN AVALANCHE DETECTORS BEFORE AND AFTER IRRADIATION UP TO A FLUENCE OF 10<sup>15</sup> NEQ/CM<sup>2</sup>”.**

**JOURNAL OF INSTRUMENTATION. Vol: 12, 7774 – 7785, 2017.**

**DOI: [10.1088/1748-0221/12/05/P05003](https://doi.org/10.1088/1748-0221/12/05/P05003)**

7 - Fernández-Martínez P., Ré L., Flores D., Hidalgo S., Quirion D., Ullán M.

**“GAMMA IRRADIATION DAMAGE ON THE VERTICAL JFET TRANSISTORS FABRICATED AT THE IMB-CNM”.**

**JOURNAL OF INSTRUMENTATION. Vol: 12, C03050 – 7785, 2017.**

**DOI: [10.1088/1748-0221/12/03/C03050](https://doi.org/10.1088/1748-0221/12/03/C03050)**

8 - Soler V., Cabello M., Berthou M., Montserrat J., Rebollo J., Godignon P., Mihaila A., Rogina M.R., Rodriguez A., Sebastian J.

**“HIGH-VOLTAGE 4H-SIC POWER MOSFETS WITH BORON-DOPED GATE OXIDE”.**

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**DOI: [10.1109/TIE.2017.2723865](https://doi.org/10.1109/TIE.2017.2723865)**

9 - Berencén Y., Mundet B., Rodríguez J.A., Montserrat J., Domínguez C., Garrido B.  
“HOT ELECTRON ENGINEERING FOR BOOSTING ELECTROLUMINESCENCE EFFICIENCIES OF SILICON-RICH NITRIDE LIGHT EMITTING DEVICES”.

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10 - Cabello M., Soler V., Montserrat J., Rebollo J., Rafí J.M., Godignon P.  
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11 - Piñero J.C., Villar M.P., Araujo D., Montserrat J., Antúnez B., Godignon P.  
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12 - Fernandez M., Perpiñà X., Roig J., Vellvehi M., Bauwens F., Jordà, X., Tack M.  
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13 - Soler V., Berthou M., Mihaila A., Monserrat J., Godignon P., Rebollo J., Millán J.

“PLANAR EDGE TERMINATIONS FOR HIGH VOLTAGE 4H-SIC POWER MOSFETS”.

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14 - Fernández M., Perpiñà X., Vellvehi M., Jordà X.

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15 - Reverter F., Perpiñà X., Barajas E., León J., Vellvehi M., Jordà X., Altet J.

“SINGLE-MOSFET DC THERMAL SENSOR FOR RF-AMPLIFIER CENTRAL FREQUENCY EXTRACTION”.

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16 - Gallrapp C., Fernández García M., Hidalgo S., Mateu I., Moll M., Otero Ugobono S., Pellegrini G.

“STUDY OF GAIN HOMOGENEITY AND RADIATION EFFECTS OF LOW GAIN AVALANCHE PAD DETECTORS”.

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- 17 - Banu V., Berthou M., Montserrat J., Jordà X., Godignon P.  
“SURGE CURRENT ROBUSTNESS IMPROVEMENT OF SIC JUNCTION BARRIER SCHOTTKY DIODES BY LAYOUT DESIGN”.  
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- 18 - Flaschel N., Ariza D., Díez S., Gerboles M., Gregor I.M., Jordà X., Mas R., Quirion D., Tackmann K., Ullan, M.  
“THERMAL AND HYDRODYNAMIC STUDIES FOR MICRO-CHANNEL COOLING FOR LARGE AREA SILICON SENSORS IN HIGH ENERGY PHYSICS EXPERIMENTS”.  
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- 19 - Perpiñà X., León J., Altet J., Vellvehi M., Reverter F., Barajas E., Jordà X.  
“THERMAL PHASE LAG HETERODYNE INFRARED IMAGING FOR CURRENT TRACKING IN RADIO FREQUENCY INTEGRATED CIRCUITS”.  
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**DOI: [10.1063/1.4977175](#)**
- 20 - Alonso, O.; Franch, N.; Canals, J.; Palacio, F.; Lopez, M.; Vila, A.; Diéguez, A.; Carulla, M.; Flores, D.; Hidalgo, S.; Merlos, A.; Pellegrini, G.; Quirion, D.  
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