

## LIST OF PUBLICATIONS

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### 1997

- [1] **Characterization and modelling of photoconductive GaN UV detectors**  
E. Monroy, J. A. Garrido, E. Muñoz, I. Izpura, F. J. Sánchez, M. A. Sánchez-García, E. Calleja, B. Beaumont, and P. Gibart  
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*Appl. Phys. Lett.* 71, pp. 870-873 (1997)
- [3] **Growth kinetics and morphology of high quality AlN grown on Si (111) by plasma-assisted MBE**  
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*J. Appl. Phys.* 82, pp. 4681-4683 (1997)
- [4] **Study of high quality AlN layers grown on Si(111) substrates by plasma-assisted MBE**  
M. A. Sánchez-García, E. Calleja, E. Monroy, F. J. Sánchez, F. Calle, and E. Muñoz  
*MRS Internet J. Nitride Semicond. Res.* 2, art. 33 (1997)
- [5] **Yellow luminescence in Mg-doped GaN**  
F. J. Sánchez, F. Calle, D. Basak, J.M.G. Tijero, M. A. Sánchez-García, E. Monroy, E. Calleja, E. Muñoz, B. Beaumont, P. Gibart, J. J. Serrano, and J. M. Blanco  
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- [6] **Al<sub>x</sub>Ga<sub>1-x</sub>N:Si Schottky barrier photodiodes with fast response and high detectivity**  
E. Monroy, F. Calle, E. Muñoz, F. Omnes, P. Gibart, and J.A. Muñoz  
*Appl. Phys. Lett.* 73, pp. 2146-2148 (1998)
- [7] **High-performance GaN p-n junction photodetectors for solar ultraviolet applications**  
E. Monroy, E. Muñoz, F.J. Sánchez, F. Calle, E. Calleja, B. Beaumont, P. Gibart, J.A. Muñoz, and F. Cussó  
*Semicond. Sci. Technol.* 13, pp. 1042-1046 (1998)
- [8] **GaN-based solar-UV detector instrument**  
E. Monroy, F. Calle, C. Angulo, P. Vila, A. Sanz, J. A. Garrido, E. Calleja, E. Muñoz, S. Haffouz, B. Beaumont, F. Omnes, and P. Gibart  
*Appl. Opt.* 37, pp. 5058-5062 (1998)
- [9] **Ultraviolet photodetectors based on Al<sub>x</sub>Ga<sub>1-x</sub>N Schottky Barriers**  
E. Monroy, F. Calle, E. Muñoz, F. Omnes, B. Beaumont, P. Gibart, J.A. Muñoz, and F. Cussó  
*MRS Internet J. Nitride Semicond. Res.* 3, art. 9 (1998)
- [10] **The origin of UV and visible electroluminescence in homojunction GaN LEDs**  
F. Calle, E. Monroy, F.J. Sanchez, E. Muñoz, B. Beaumont, S. Haffouz, M. Leroux, and P. Gibart  
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J. A. Garrido, E. Monroy, I. Izpura, and E. Muñoz  
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- [12] **The effect of the III/V ratio and substrate temperature on the morphology and properties of GaN- and AlN-layers grown by MBE on Si(111)**  
M. A. Sánchez-García, E. Calleja, E. Monroy, F. J. Sánchez, F. Calle, E. Muñoz, and R. Beresford  
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- [13] **Blue-UV homojunction GaN LEDs fabricated by MOVPE**  
B. Beaumont, F. Calle, S. Haffouz, E. Monroy, M. Leroux, E. Calleja, P. Lorenzini, E. Muñoz, and P. Gibart  
*Mat. Sci. Forum*, vol. 264-268, pp. 1425-1428 (1998)
- [14] **Nitrides and their interfaces with metals studied by means of electron spectroscopies**  
R. Sporken, C. Silien, J. Dumont, E. Monroy, F. Calle, and E. Muñoz  
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- [15] **Growth Optimization and Doping with Si and Be of High Quality GaN on Si(111) by Molecular Beam Epitaxy**  
 M. A. Sánchez-García, E. Calleja, F. J. Sánchez, F. Calle, E. Monroy, D. Basak, E. Muñoz, C. Villar, A. Sanz-Hervás, M. Aguilar, J. J. Serrano, and J. M. Blanco  
*J. Electron. Mat.* 27, pp. 276-281 (1998)
- [16] **Al<sub>x</sub>Ga<sub>1-x</sub>N based UV visible-blind photodetector device applications**  
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*Appl. Phys. Lett.* 74, pp. 1171-1173 (1999)
- [18] **AlGaN metal-semiconductor-metal photodiodes**  
 E. Monroy, F. Calle, E. Muñoz, and F. Omnes  
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- [19] **Schottky barrier ultraviolet photodetectors on Epitaxial Lateral Overgrown GaN**  
 E. Monroy, F. Calle, E. Muñoz, B. Beaumont, F. Omnes, and P. Gibart  
*Physica Status Solidi A* 176, pp. 141-145 (1999)
- [20] **Effects of bias on the responsivity of GaN metal-semiconductor-metal photodiodes**  
 E. Monroy, F. Calle, E. Muñoz, and F. Omnes  
*Physica Status Solidi A* 176, pp. 157-161 (1999)
- [21] **High UV/visible contrast photodiodes based on Epitaxial Lateral Overgrown GaN layers**  
 E. Monroy, F. Calle, E. Muñoz, B. Beaumont, F. Omnes, and P. Gibart  
*Electron. Lett.* 35, pp. 1488-1489 (1999)
- [22] **Si-doped Al<sub>x</sub>Ga<sub>1-x</sub>N photoconductive detectors**  
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- [23] **Low-noise AlGaN metal-semiconductor-metal photodiodes**  
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 E. Monroy, F. Calle, E. Muñoz, F. Omnes, B. Beaumont, and P. Gibart  
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- [26] **High speed, low noise metal-semiconductor-metal ultraviolet photodetectors based on GaN**  
 D. Walker, E. Monroy, P. Kung, M. Hamilton, F. J. Sánchez, J. Diaz, and M. Razeghi  
*Appl. Phys. Lett.* 74, pp. 762-764 (1999)
- [27] **Development of High-performance III-Nitride-based Semiconductor Devices**  
 M. Razeghi, P. Kung, D. Walker, E. Monroy, M. Hamilton, and P. Sandvik  
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- [28] **Nanoindentation on AlGaN thin films**  
 D. Cáceres, I. Vergara, R. González, E. Monroy, F. Calle, E. Muñoz, and F. Omnes  
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- [29] **Metalorganic vapor phase epitaxy of AlGaN for visible blind UV photodetector applications**  
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- [30] **Low Pressure MOVPE grown AlGaN for UV photodetector applications**  
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- [32] **Time response analysis of ZnSe and ZnMgBeSe based Schottky barrier photodetectors**  
 E. Monroy, F. Vigué, F. Calle, I. Izpura, E. Muñoz, and J.-P. Faurie  
*Appl. Phys. Lett.* 77, pp. 2761-2763 (2000)
- [33] **Analysis and modeling of  $\text{Al}_x\text{Ga}_{1-x}\text{N}$ -based Schottky barrier photodiodes**  
 E. Monroy, F. Calle, J. L. Pau, F. J. Sánchez, E. Muñoz, F. Omnes, B. Beaumont, and P. Gibart  
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- [35] **Visible-blind ultraviolet photodetectors based on  $\text{Al}_x\text{Ga}_{1-x}\text{N}$  alloys**  
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*J. Geophys. Res.* 105, pp. 4865-4871 (2000)
- [38] **(Al,Ga)N Ultraviolet Photodetectors and Applications**  
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- [39] **AlGaN based structures on sapphire for visible to solar blind Schottky barrier UV photodetectors: towards high performance device applications**  
 F. Omnes, E. Monroy, B. Beaumont, F. Calle, E. Muñoz, and P. Gibart  
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- [40] **Modeling of the spectral response of  $\text{Al}_x\text{Ga}_{1-x}\text{N}$  p-n junction photodetectors**  
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- [43] **Metal/GaN contacts studied by electron spectroscopies**  
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- [44] **Modelling of the spectral response of the  $\text{Al}_x\text{Ga}_{1-x}\text{N}$  Schottky barrier ultraviolet photodetectors**  
 A. Bouhdada, M. Hanzaz, P. Gibart, F. Omnes, E. Monroy, and E. Muñoz  
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- [45] **Wet etching of GaN grown by molecular beam epitaxy on Si (111)**  
 T. Palacios, F. Calle, M. Varela, C. Ballesteros, E. Monroy, F. B. Naranjo, M. A. Sánchez-García, E. Calleja, and E. Muñoz  
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*Appl. Phys. Lett.* 78, pp. 4192-4194 (2001)
- [56] **Diamond UV detectors for future solar physics missions**  
 J.-F. Hochedez, P. Bergonzo, M.-C. Castex, P. Dhez, O. Hainaut, M. Sacchi, J. Alvarez, H. Boyer, A. Deneuville, P. Gibart, B. Guizard, J.-P. Kleider, P. Lemaire, C. Mer, E. Monroy, E. Muñoz, P. Muret, F. Omnes, J.L. Pau, V. Ralchenko, D. Tromson, E. Verwiche, and J.-C. Vial  
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- [58] **Thermal stability of Pt and Ni based Schottky contacts on GaN and Al<sub>0.31</sub>Ga<sub>0.69</sub>N**  
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- [59] **Assessment of GaN metal-semiconductor-metal photodiodes for high-energy ultraviolet photodetection**  
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- [60] **High-responsivity submicron MSM UV detectors**  
 T. Palacios, E. Monroy, F. Calle, and F. Omnes  
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