

## Listă lucrări în reviste ISI

1. **A. Müller**, I. Giangu, A. Stavrinidis, **A. Stefanescu**, G. Stavrinidis, A. Dinescu, G. Konstantinidis, “*Sezawa Propagation Mode in GaN on Si Surface Acoustic Wave Type Temperature Sensor Structures Operating at GHz Frequencies*”, **IEEE Electron Device Letters**, vol. **36**, no. **12**, **2015**, pp. 1299 – 1302, **factor de impact: 2.754**
2. **A. Müller**, G. Konstantinidis, V. Buiculescu, A. Dinescu, A. Stavrinidis, A. Stefanescu, G. Stavrinidis, I. Giangu, A. Cismaru, A. Modoveanu, “*GaN/Si based single SAW resonator temperature sensor operating in the GHz frequency range*”, **Sensors and Actuators A**, vol. **209**, **2014**, pp.115–123, **factor de impact: 1.903**
3. A. Stefanescu, **A. Müller**, I. Giangu, A. Dinescu “*Influence of Au based metallization on the phase velocity of GaN on Si Surface Acoustic wave resonators*” **IEEE Electron Devices Letters**, vol. **37**, No **3**, **2016**, pp. 321-324, **factor de impact: 2.754** (A. Müller- corresponding author)
4. **A. Müller**, G. Konstantinidis, Maria Androulidaki, A. Dinescu, A. Stefanescu, A. Cismaru, D. Neculoiu, E. Pavelescu, A. Stavrinidis, “*Front and backside-illuminated GaN/Si based metal–semiconductor–metal ultraviolet photodetectors manufactured using micromachining and nanolithographic technologies*”, **Thin Solid Films**, vol. **520**, **2012**, pp. 2158-2161, **factor de impact: 1.604**
5. **A. Müller**, D. Neculoiu, G. Konstantinidis, G. Deligeorgis, A. Dinescu, A. Stavrinidis, A. Cismaru, M. Dragoman, A. Stefanescu, “*SAW devices manufactured on GaN/Si for frequencies beyond 5 GHz*”, **IEEE Electron Devices Letters**, vol. **31**, no. **12**, **2010**, pp. 1398-1400, **factor de impact: 2.714**
6. **A. Müller**, D. Neculoiu, G. Konstantinidis, A. Stavrinidis, D. Vasilache, A. Cismaru, M. Danila, M. Dragoman, G. Deligeorgis, K. Tsagaraki, “*6.3 GHz Film Bulk Acoustic Resonator Structures Based on a Gallium Nitride/Silicon Thin Membrane*”, **IEEE Electron Devices Letters**, vol. **30**, no **8**, **2009**, pp. 799-801, **factor de impact: 2.605**
7. A. Cismaru, **A. Müller**, G. Konstantinidis, F. Comanescu, M. Purica, A. Stefanescu, A. Stavrinidis, A. Dinescu, A. Moldoveanu, “*Residual stress distribution and deflection analysis of very thin GaN membrane supported devices*” **J. Micromech. Microeng.**, vol **23**, **2013**, 015010 (7pages), **factor de impact: 1.731** (A. Müller- corresponding author)
8. **A. Müller**, G. Konstantinidis, M. Dragoman, D. Neculoiu, A. Dinescu, M. Androulidaki, M. Kayambaki, A. Stavrinidis, D. Vasilache, C. Buiculescu, I. Petrini, A. Kostopoulos, D. Dascalu, “*GaN membrane-supported UV photodetectors manufactured using nanolithographic processes*” **Microelectronics Journal**, vol. **40**, **2009**, pp. 319-321, **factor de impact: 0.778**
9. M. Dragoman, G. Deligeorgis, **A. Müller**, A. Cismaru, D. Neculoiu, G. Konstantinidis, D. Dragoman, A. Dinescu and F. Comanescu, “*Millimeter wave Schottky diode on graphene monolayer via symmetric metal contacts*”, **J. Appl. Phys.**, vol. **112**, **084302**, **2012**, **factor de impact: 2.21**
10. Andrei A. Müller, D. Neculoiu, A. Cismaru, P. Pons, R. Plana, D. Dascalu, **A. Müller**, “*Novel micromachined lumped bandpass-filter for 5.2GHz WLAN applications*” **Int. Journal of Electronics and Communications (AEÜ)**, vol. **65**, **2011**, pp. 1050-1053, **factor de impact: 0.588**
11. P. Pursula, T. Vaha-Heikkila, **A. Müller**, D. Neculoiu, G. Konstantinidis, A. O. Jussi-Tuovinen, “*Millimetre Wave Identification — A new short range radio system for low power, high data rate applications*” **IEEE Trans on MTT**, vol. **56**, no. **10**, **2008**, pp. 2221-2228, **factor de impact: 2.711**
12. I. Giangu, V. Buiculescu, F. Bechtold, G. Konstantinidis, K. Szaciłowski, A. Stefanescu, K. Pilarczyk, A. Stavrinidis, P. Kwolek, G. Stavrinidis, J. Mech, **A. Müller** “*Development and Experimental Results on LTCC Packages for Acoustic Wave Sensing Devices*”, **ROMJIST**, no.4, **2014**, pp. 320–339, **factor de impact: 0.304**

13. **A. Müller**, A. Stefanescu, G Konstantinidis, *Response to comments on "GaN/Si based single SAW resonator temperature sensor operating in the GHz frequency range"*, **Sensors and Actuators A** vol **247**, **2016**, pp. 162–163, **factor de impact: 2.201**
14. **A. Müller**, G. Konstantinidis, M. Dragoman, D. Neculoiu, A. Kostopoulos, M. Androulidaki, M. Kayambaki, D. Vasilache „*GaN membrane metal-semiconductor-metal ultraviolet photodetector*” **Applied Optics**, vol. 47, no. 10, **2008**, pp. 1453-1456, **factor de impact: 1.701**
15. D. Neculoiu, **A. Müller**, G. Deligeorgis, A. Dinescu, A. Stavrinidis, D. Vasilache, A. Cismaru, G. E. Stan, G. Konstantinidis, “*AIN on silicon based Surface Acoustic Wave resonators operating at 5 GHz*” **Electron. Lett.** **Vol. 45**, **1196**, **2009**, **factor de impact: 0.97**;
16. M. Bozanic, S. Sinha, **A. Müller**, “*Streamlined Design of SiGe Based Power Amplifiers*” **Romanian Journal of Information Science and Technology**, vol. **13**, **2010**, pp. 22-32, **factor de impact: 0.188**
17. A. Ștefănescu, D. Neculoiu, **A. Müller**, A. Dinescu, G. Konstantinidis, A. Stavrinidis “*Analysis of GaN Based SAW Resonators including FEM Modeling*”, **Romanian Journal Of Information Science And Technology**, vol. **14**, no. **4**, **2011**, pp. 334–345, **factor de impact: 0.304**
18. A. C. Bunea, D. Neculoiu, **A. Müller**, “*Analytic and Electromagnetic Investigation of Millimeter Wave Membrane Supported CPWs Processed on High Resistivity Silicon*”, **Romanian Journal Of Information Science And Technology**, vol. **14**, no. **3**, **2011**, pp. 269–283, **factor de impact: 0.304**
19. F. Coccetti, D. Peyrou, M. Al Ahmad, V. Puyal, P. Pons, H. Aubert, **A. Müller**, M. Dragoman, R. Plana “*RF MEMS status and perspective*”, **Phys. Stat. Sol. (c)**, vol. **5**, no. **12**, **2008**, pp. 3822-3827, **factor de impact: 0.847**
20. A. Takacs, D. Neculoiu, D. Vasilache, **A. Müller**, P. Pons, L. Bary, P. Calmon, H. Aubert and R. Plana, “*Tunable bandstop MEMS filter for millimetre-wave applications*”, **Electronics Letters**, vol. **43**, no. **12**, **2007**, pp. 676-677, **factor de impact: 1.009**
21. **A. Müller**, D. Neculoiu, D. Vasilache, D. Dascalu, G. Konstantinidis, A. Kosopoulos, A. Adikimenakis, A. Georgakilas, K. Mutamba, C. Sydlo, H.L. Hartnagel, A. Dadgar, “*GaN micromachined FBAR structures for microwave applications*”, **Superlattices &Microstructures**, vol. **40**, **2006**, pp. 426-431, **factor de impact: 1.259**
22. G. J. Papaioannou, M. Exarchos, and V. Theonas, J. Psychias and G. Konstantinidis, D. Vasilache, **A. Müller**, and D. Neculoiu, “*Effect of space charge polarization in radio frequency microelectromechanical system capacitive switch dielectric charging*”, **Appl Phys Lett.**, vol **89**, 103512\_2006, **factor de impact: 3.977**
23. M. Dragoman, **A. Müller**, D. Neculoiu, D. Vasilache, G. Konstantinidis, K. Grenier, D. Dubuc, L. Bary, R. Plana, “*High Performance thin film bulk acoustic resonator covered with carbon nanotubes*” **Appl Phys Lett.**, vol. 89,143122, **2006**, **Impact factor 3.977**;
24. A.Pantazis, D. Neculoiu, Z. Hazoupulos, D. Vasilache, M. Lagas, M. Dragoman, C. Buiculescu, I. Petrini, A. A. Muller, G. Konstantinidis, **A. Müller** “*Millimeter wave passive circuits elements based on GaAs micromachining*”, **Journal of Micromech. Microeng.**, vol.**15**, **2005** pp.S-53-S59, **factor de impact: 2.499**;
25. M. Saadoui, P. Pons, R. Plana, L. Bary, P. Dureuil, D. Bourrier, D. Vasilache, D. Neculoiu, **A. Müller**, “*Dry followed by wetbackside etching processes for micromachined endfire antennae*” **Journal of Micromech. Microeng.**, vol.**15**, no. **7**, **2005**, pp. S65-S71, **factor de impact: 2.499**
26. D. Neculoiu, G. Bartolucci, P. Pons, L. Bary, D. Vasilache, **A. Müller**, R. Plana, “*Compact membrane-supported bandpass filter for millimeter-wave applications*”, **Electronics Letters**, vol.**40**, no.**3**, pp. **180-182**, **2004**, **factor de impact: 0.968**
27. D. Neculoiu, P. Pons, L. Bary, M. Saadaoui, D. Vasilache, K. Grenier, D. Dubuc, **A. Müller**, R. Plana “*Membrane Supported Yagi-Uda Antennae for Millimeter-Wave Applications*”, **IEE Microwave, Antennas and Propagation**, vol. **151**. no. **4**, **2004**, pp. 311-314, **factor de impact: 0.91**

28. G. Konstantinidis, D. Neculoiu, M. Lagadas, G. Deligeorgis, D. Vasilache and **A. Müller** "GaAs membrane supported millimeter wave receiver structures", **J. Micromech. Microeng.** vol. **13**, **2003**, pp. 353-358, **factor de impact: 1.699**
29. **A. Müller**, G. Constantinidis, F. Giacomozzi, M. Lagadas, G. Deligeorgis, S. Iordanescu, I. Petrini, D. Vasilache, R. Marcelli, G. Bartolucci, D. Neculoiu, C. Buiculescu, P. Blondy, D. Dascalu. "Micromachined filters for 38 and 77 GHz supported on thin membranes", **Journal Micromech. Microeng.**, vol. **11**, **2001**, pp. 1-5, **factor de impact: 1.211**;
30. **A. Müller**, S. Iordanescu, I. Petrini, V. Avramescu, G. Simion, D. Vasilache, V. Badilita, D. Dascalu, G. Konstantinidis, R. Marcelli, G. Bartolucci, "Polyimide based GaAs micromachined millimeter wave structures", **Journal of Micromech. Microeng.** vol. **10**, **2000**, pp.130-135, **factor de impact: 1.141**;
31. I. Petrini, **A. Müller**, V. Avramescu, G. Simion, N. Nitescu, D. Vasilache, D. Dascalu, G. Konstantinidis, "Resistive pressure sensing structures on polyimide membranes on GaAs substrate", **Journal of Micromechanics and Microengineering**, vol. **10**, **2000**, pp. 218-222, **factor de impact: 1.141**
32. I. Petrini, **A. Müller**, V. Avramescu, S. Iordanescu, D. Dascalu, "Microwave micromachined structures on <100> silicon substrate using polyimide supported pads", **Microelectronic and Engineering**, vol. **51-52**, **2000**, pp.595-600, **factor de impact: 1.141**
33. **A. Müller**, S. Iordanescu, "Membrane supported microwave circuits", **ROMJIST**, vol. **2**, no.1-2, **1999**, pp. 117-128, **factor de impact: 0.095**
34. S. Voinigescu, **A. Müller**, "Charge dynamics in heterostructure Schottky – Gate capacitors and their influence on the transconductance", **IEEE Trans. on El. Devices**, **1989**, vol. **ED 36**, pp. 2320-2327, **factor de impact: 2.472**
35. **A. Müller**, S. Voinigescu, "Heavy Doping Effects on the I-V and Stored Charge Characteristics of Narrow Base PIN Diodes", **Solid State Electronics** **1989**, vol. **ED 32** no. **8**, pp. 593-601, **factor de impact: 1.47**
36. L. Dozsa, F. Riesz, J. Karanyi, Vo Van Tuyen, B. Szentpáli, **A. Müller**, "A Transient Method for Measuring Current–Voltage Characteristics with Negative Differential Resistance Regions", **Physica Status Solidi (a)**, vol. **163**, **1997**, pp. R1-R2, **factor de impact: 1.45**
37. F. Coccetti, **A. Müller**, J. Papapolymeru, V. Z. Xiegler, B. Schoenlinner, "EuMA special issue on RF-MEMS", **Microwave and Wireless Technologies, International Journal of Microwaves and wireless technologies**, vol. **3**, no. **05**, **2011**, pp. 497-498, **factor de impact: 0.84**
38. G. Bartolucci, D. Neculoiu, M. Dragoman, F. Giacomozzi, R. Marcelli, **A Müller**, "Modelling, design and realization of micromachined millimeter-wave band-pass filters" **International Journal of Circuit Theory and Applications**, vol. **32**, no. **5**, **2003**, pp. 529-539, **factor de impact: 0.971**

#### **Listă lucrări în alte reviste**

39. **A. Müller**, R. Marcelli, I. Petrini, V. Avramescu, S. Iordanescu, S. Petrocco, L. Scopa, C. Risi, D. Vasilache, "Dielectric membrane support", **European Semiconductor**, vol. **11**, no. **9**, **1997**, pp. 27-28
40. S. Voinigescu, **A. Müller**, C. Anton, "Auger Recombination in Heavily-Doped  $p^+$  Silicon", **Solid State Phenomena**, vol. **6**, **1989**, pp. 315-322, **factor de impact: 0.39**



## Listă lucrari prezentate la conferințe ISI

1. **A. Müller**, A. Stavrinidis, I. Giangu, A. Stefanescu, G. Stavrinidis, A. Pantazis, A. Dinescu, G. Boldeiu, G. Konstantinidis, "High sensitivity, GHz operating SAW pressure sensor structures manufactured by micromachining and nano-processing of GaN/Si", **Proc. of International Microwave Symposium IMS**, San Francisco, California, May 2016
2. **A. Müller**, G. Konstantinidis, I. Giangu, V. Buiculescu, A. Dinescu, A. Stefanescu, A. Stavrinidis, G. Stavrinidis "GaN-based SAW structures resonating within the 5.4-8.5 GHz frequency range, for high sensitivity temperature sensors" **Proc of IEEE MTT-S International Conference Microwave Symposium (IMS)**, Tampa, Florida, May 2014, pp. 1-4
3. I. Giangu, G Stavrinidis, A. Stefanescu, A. Stavrinidis, A. Dinescu, G. Konstantinidis, **A. Müller** "Pressure sensors based on high frequency operating GaN FBARs" **Proc of CAS IEEE International Conference**, Sinaia, Romania 2015, pp. 157-162
4. A Stefanescu, V. Buiculescu, A. Dinescu, A. Cismaru, **A. Müller**, G. Konstantinidis, A. Stavrinidis, G. Stavrinidis, "Modeling of SAW Resonators Fabricated on GaN/Si", **IEEE Conference on Microwaves, Communications, Antennas and Electronic Systems – IEEE COMCAS 2013**, Tel Aviv, Israel, 21-23 October 2013
5. **A. Müller**, G. Konstantinidis, A. Dinescu, V. Buiculescu, A. Stefanescu, A. Cismaru, I. Giangu, G. Stavrinidis, A. Stavrinidis, A. Ziaei, "Novel high sensitivity sensor structures for temperature monitoring of GAN based MMICs", **19<sup>th</sup> International Workshop on Thermal Investigations of ICs and Systems (THERMINIC)**, Berlin, 2013, pp. 268-269
6. I. Giangu, V Buiculescu, G Konstantinidis, K Szacilowski, A Stefanescu, **A Müller** "Acoustic wave sensing devices and their LTCC packaging" **Proc of CAS IEEE International Conference**, 2014, pp. 147-159
7. A. Cismaru, **A. Müller**, F Comanescu, M Purica, A. Stefanescu, A. Dinescu, G. Konstantinidis, A. Stavrinidis "Morphological analysis of GaN membranes obtained by micromachining of GaN/Si" **IEEE International Proc of Reliability Physics Symposium (IRPS)**, Monterey CA, USA, 2013, ME.2.1-ME.2.4
8. D Neculoiu, A Bunea, **A. Müller**, "Membrane supported circuits for millimeter wave applications" **Proc of CAS IEEE International Semiconductor Conference**, 2014, pp. 157-162
9. A. Stefanescu, **A. Müller**, G. Konstantinidis, V. Buiculescu, A. Dinescu, A. Stavrinidis, D. Neculoiu, A. Cismaru, "SAW GaN/Si based resonators: modeling and experimental validation" **Proc of IEEE International Semiconductor Conference**, Sinaia, Romania, 2012, pp 193-196
10. A.C. Bunea, D. Neculoiu, A. Stefanescu, C. Buiculescu, **A. Müller**, "Investigation of millimeter wave membrane supported structures up to 110 GHz", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2011, pp. 207-210
11. A. Stefanescu, **A. Müller**, A. Dinescu, G. Konstantinidis, A. Cismaru, A. Stavrinidis, D. Neculoiu, „FEM Analysis of GaN based surface acoustic wave resonators”, **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2011, pp 177-180
12. D Popovici, C Hulubei, VE Musteata, **A Müller** "New polyimides containing aliphatic segments and thin films based on them", **Proc of IEEE International Semiconductor Conference, CAS** Sinaia, Romania, 2010, pp. 333-336
13. **A. Müller**, G. Konstantinidis, D. Neculoiu, A. Dinescu, M Andrulidaki, G. Deligeorgis, A. Stavrinidis, R. Gavrilă, A. Cismaru, M Carp, A. Stefanescu, A. A. Müller, C. Anton D. Dascalu, "Micromachining and nanoprocessing of GaN/Silicon for SAW and UV photodetector manufacturing", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2010, pp. 265-268
14. **A. Müller**, D. Neculoiu, G. Konstantinidis, D. Vasilache, A. Dinescu, A. Stavrinidis, G. Deligiorgis, M. Danila, K. Tzagaraki, A. Cismaru, C. Buiculescu, I. Petrini, A.A. Müller and D. Dascalu, "GHz FBAR and SAW resonators manufactured on GaN/Si" **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2009, pp. 319-323,

15. D.Neculoiu, S.I.Ene, A.A.Muller, C.Buiculescu, **A. Müller**, "Electromagnetic modelling and design of 77 GHz antennas in LTCC technology", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2009, pp 314-345,
16. M. Bozanic, S. Sinha, M. Du Plessis, **A. Müller**, "Design flow for aSiGe BiCMOS based power amplifier", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2009, pp. 311-315,
17. **A. Müller**, G. Konstantinidis, D. Neculoiu, A. Dinescu, C. Morosanu, A. Stavrinidis, M. Dragoman, D.Vasilache, C. Buiculescu, I. Petrini, C. Anton, "AIN SAW structures for GHz applications", **Proceedings of the 2008 Asia-Pacific Microwave Conference (APMC 2008)**, , Hong Kong, China, vol 1-5 Book Series Title: Proceedings of Asia Pacific Microwave Conference, 2008, pp: 1574-1577
18. **A. Müller**, G. Konstantinidis, M. Dragoman, D Neculoiu, A. Dinescu, M. Androulidaki, M. Kayambaki, A. Stavrinidis, D. Vasilache, C. Buiculescu, I. Petrini, C. Anton, D. Dascalu, A. Kostopoulos, "Ultraviolet MSM photodetector based on GaN micromachining" **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2008, pp. 91-95
19. D. Neculoiu, G. Konstantinidis, T. Vaha-Heikkila, **A. Müller**, A. Stavrinidis, M. Kantenen, D. Vasilache, Z. Chatzopoulos, and M. Dragoman, "GaAs Membrane-Supported 60 GHz Receiver with Double Folded Slot Antennas", **Proceedings of the 2008 IEEE Asia-Pacific Microwave Conference, (APMC 2008)**, Hong Kong, China, 16–20 Dec. 2008
20. D. Neculoiu, A.A. Muller, F. Giacomozzi, D. Vasilache, I. Petrini, C. Buiculescu, **A. Müller**, "Design and optimization of microwave lumped elements filters using mixed circuital-electromagnetic simulations", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2008, pp 99-103
21. A.Takacs, D. Neculoiu, D. Vasilache, **A. Müller**, P. Pons, L. Bary, P. Calmon, H.Aubert, R.Plana, "Tunable Bandstop and Bandpass MEMS Filters for Millimeter Wave Applications" **Proceedings of the 38<sup>th</sup> European Microwave Conference**, Amsterdam, The Netherlands, October 2008, pp 591-594
22. T. Vaha-Heikkila, P. Pursula, **A. Müller**, D. Neculoiu, G. Konstantinidis, J. Tuovinen, "Millimeter wave identification: Concept, applications, and demonstrations", **Nanosensors and Microsensors for Bio-Systems**, vol. 6931, 2008
23. **A. Müller**, G. Konstantinidis, D. Neculoiu, M. Dragoman A Dinescu, A. Stavrinidis, D. Vasilache, and C. Morosanu "SAW and FBAR resonators for GHz applications based on micromachining and nanoprocessing of wide bandgap semiconductors " **IEEE 25<sup>th</sup> Convention of Electrical and Electronics Engineering**, vol. 1-2, Eilat, Israel, Dec 2008, pp. 561-564,
24. Takacs A., D. Neculoiu, D. Vasilache, **A. Müller**, P. Pons, L. Bary, P. Calmon, R.Plana, H.Aubert "New Topologies of Tunable Bandstop MEMS Filters for Millimeter Wave Applications" **European Microwave Week – European Microwave Conference, EuMW-EuMC 2007**, Munchen, Germany, 2007, pp 126-129,
25. **A. Müller**, D. Neculoiu, P. Pursula, T. Vähä-Heikkilä, F. Giacomozzi and J. Tuovinen, "Hybrid Integrated Micromachined Receiver for 77 GHz Millimeter Wave Identification Systems" **European Microwave Week – European Microwave Conference, EuMW-EuMC 2007**, Munchen, Germany, 2007, pp. 1034-1037
26. **A. Müller**, A Dinescu, G Konstantinidis, D Vasilache, M Dragoman, "Wide Band Gap semiconductor SAW type devices for GHz applications, manufactured using nano-lithographic techniques" **Proc of IEEE International Conference CAS**, 2007, pp. 255-258
27. M. Dragoman, **A. Müller**, D. Neculoiu, G.Konstantinidis, K.Grenier, D.Dubuc, L.Bary, R. Plana, H. Hartnagel, E. Fourn, E. Flahaut, "Carbon Nanotubes-Based Microwave and Millimeter Wave Sensors" **European Microwave Week – European Microwave Conference, EuMW-EuMC 2007**, Munchen, Germany, 2007, pp 16-19
28. D. Neculoiu, G. Konstantinidis, **A. Müller**, A. Kostopoulos, D. Vasilache, K. Mutamba, C. Sydlo, H. L. Hartnagel, L. Bary, R. Plana, "Microwave FBAR Structures Fabricated using

Micromachined GaN Membranes”, **IEEE MTT-S International Microwave Symposium Digest**, 2007, pp.877-880

29. **A. Müller**, G. Konstantinidis, D Neculoiu,, A. Kostopoulos, M. Dragoman, ,M. Androulidaki, M. Kayambaki, D. Vasilache, C Buiculescu, I.Petrini, “GaN membrane MSM ultraviolet photodetectors” **Proc of the SPIE Conf on Smart Materials Nano and Microsystems 2006**, Adelaide Australia, vol. 6415, 2006, pp. 641509-1-8
30. A Takacs, D Neculoiu, D Vasilache, **A. Müller**, P Pons, L Bary, R Plana, ”Design of Tunable MEMS Filters for Millimeter Wave Systems” **Proceeding of 13<sup>th</sup> IEEE Mediterranean Electrotechnical Conference, MELECON 2006**, pp 301-304
31. D. Neculoiu, I. Petrini, C. Buiculescu, M. Dragoman, **A. Müller**, F.Giacomozzi, G.Bartolucci, R. Marcelli, “Design and Characterization of a Quasi-Optical Mixer Fabricated using Silicon Micromachining”, **Proceeding of 13<sup>th</sup> IEEE Mediterranean Electrotechnical Conference, MELECON 2006**, pp 210-213
32. G. Konstantinidis, D. Neculoiu, A. Staviniidris, Z. Chatzopoulos, **A. Müller**, K. Tsagaraki, D.Vasilache,I. Petrini, C. Buiculescu, L. Bary, R. Plana, “Millimeter -wave monolithic integrated receivers based on GaAs micromachining” **Proc of the SPIE Conf on Smart Materials Nano and Microsystems**, 2006, Adelaide, Australia, vol. 6415, pp C4150-1-9, 2006
33. D. Vasilache, M. Dragoman, G. Constantinidis, Y. Psychias, F. Vladoianu, T. Kostopoulos, C. Tibeica, L. Bary, A. Cismaru, D. Neculoiu, C. Buiculescu, I. Petrini, R. Plana, **A. Müller**, ”60 GHz band RF MEMS switch”, **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2006, pp. 119-122
34. D. Neculoiu, F. Giacomozzi, L. Bary, D. Vasilache, A.A. Muller, B. Margesin, I. Petrini, C. Buiculescu, A. Takacs, R. Plana, **A. Müller**, “Compact lumped elements micromachined band-pass filters with discrete switching for 1.8/5.2 GHz applications”, **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania,2006, pp. 107-110
35. A. Takacs, D. Neculoiu, D. Vasilache, **A. Müller**, P. Pons, H. Aubert, R. Plana, “Tunable MEMS filters for millimeter wave applications”, **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2006, pp.115-118
36. **A. Müller**, M. Saadoui, P. Pons, D. Neculoiu, L. Bary, D. Dubuc, K. Grenier, D. Vasilache, C. Buiculescu, I. Petrini, R. Plana, “Membrane supported endfire antennas manufactured using silicon micromachining”, **IEEE Int. Workshop on Antenna Technology (IWAT) 2005**, pp 113 – 116
37. D. Neculoiu, G. Konstantinidis, L. Bary, D. Vasilache, Z. Hazopulos, A. Pantazis, R. Plana, **A. Müller** “Yagi-Uda antennas fabrication on thin membrane for millimeter wave applications”, **Proc. of IEEE Int. Workshop on Antenna Technology (IWAT) 2005**, pp 418 – 421
38. **A Müller**, G. Konstantinidis, D Neculoiu, D.Vasilache, Z. Hazopulos, A. Pantazis, A. Stavrinidis, I Petrini, C. Buiculescu “Novel Micromachined GaAs Circuits for Millimeter Wave Applications” **Proc. of EDMO IEEE International Symp**, 8-9 Nov 2004, Berg-en-Dal, South Africa, 2004, pp 9-14,
39. D. Neculoiu, G. Bartolucci, G. Konstantinidis, R. Marcelli, I. Petrini, M. Dragoman, D. Vasilache, **A. Müller**, “A Micromachined 38 GHz Schottky-Diode Uiplanar Monolithic Integrated Quasi-Optical Mixer”, **IEEE Radio Frequency Integrated Circuits MTT-S/RFIC Symposium**, 2004, pp. 531-535,
40. D. Neculoiu, G. Bartolucci, P. Pons, L. Bary, D. Vasilache, C.Buiculescu, F. Vladoianu, M. Dragoman, I. Petrini, **A. Müller** and R. Plana “Low-losses coupled-lines silicon micromachined band-pass filters for the 45 GHz frequency band” **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2003, pp 109 – 112
41. **A. Müller**, G Konstantinidis, D Neculoiu and R Plana “GaAs MEMS for Millimeter Wave Communications”, **33<sup>rd</sup> European Microwave Conference**, Munich, vol 1-3, 2003, pp. 33-36

42. **A. Müller**, G. Konstantinidis, D. Neculoiu, M. Lagadas, G. Deligeorgis, D. Vasilache, L. Bary, R. Plana, I. Petrini, C. Buiculescu, N. Kornilios "GaAs membrane supported millimetre wave circuits", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2003, pp 57-60
43. F. Giacomozzi, B. Margesin, M Zen, R Marcelli, **A. Müller** "Fabrication of millimeter wave devices on dielectric membranes by micromachining technology" **Sensors and Microsystems: Proceedings of the 7<sup>th</sup> Italian Conference**, Bologna, Italy, 2002, pp. 49-54
44. G Konstantinidis; **A. Müller**; G Deligiorgis; I Petrini, D Vasilache; D Neculoiu, M Lagadas, C Buiculescu; V Avramescu, S A. Iordanescu P Blondy "GaAs membrane supported millimeter wave filters" **Proc. SPIE 4559, MEMS Components and Applications for Industry, Automobiles, Aerospace, and Communication**, vol. 4559, pp. 157-163, Oct. 2001
45. D. Neculoiu, R. Plana, P. Pons, **A. Müller**, D. Vasilache, I. Petrini, C. Buiculescu, P. Blondy, "Microwave Characterization of membrane supported coplanar waveguide transmission lines – Electromagnetic simulation and experimental results", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2001, pp.151-154
46. D. Neculoiu, R. Marcelli, M. Dragoman, S. Iordanescu, F. Giacomozzi, **A. Müller**, "Design, manufacturing and characterization of microwave supported antennas for 38 GHz wireless applications", **Proceedings of CAS 2001, 24<sup>th</sup> Edition of the International Semiconductor Conference, Sinaia, Romania**, 2001, pp.129-132
47. **A. Müller**, G. Constantinidis, F. Giacomozzi, M. Lagadas, G. Deligeorgis, S. Iordanescu, I. Petrini, D. Vasilache, R. Marcelli, G. Bartolucci, D. Neculoiu, P. Blondy, D. Dascalu – "Thin membrane supported millimeter wave micromachined filters", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2000, pp. 429-433
48. I. Petrini, **A. Müller**, D. Vasilache, G. Constantinidis, F. Giacomozzi, C. Anton – "Microphysical characterisation and residual stress analysis of thin polyimide membranes on GaAs substrate, support for micromachined structures", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2000, pp. 455-458
49. G. Bartolucci, D. Neculoiu, M. Dragoman, R. Marcelli, **A. Müller** – "A new analytical design approach for membrane supported band-pass filters", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 2000, pp. 233-236
50. D. Vasilache, S. Iordanescu, V. Avramescu, Ioana Petrini, R. Rizescu, **A. Müller**, "Air bridges and planar inductors for MMICs", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 1998, pp. 609-612
51. **A. Müller**, I Petrini, V Avramescu, S Iordanescu, R Marcelli, V Foglietti "10  $\mu\text{m}$  thin GaAs membrane manufactured by nonselective etching" **Proc of SPIE International Society for Optical Engineering 1997**, pp 208-216, 1997
52. **A. Müller**, I Petrini, R Marcelli, S Iordanescu, V Avramescu, D Vasilache, "Dielectric and semiconductor membranes as support for microwave circuits" **Proc of MELECON 98**, pp. 387-391, 1998
53. **A. Müller**, S. Iordanescu "Membrane supported microwave circuits" **invited paper Proc. 21<sup>st</sup> International Semiconductor Conference - CAS'98**, 1998, vol. 1-2, pp 437-444
54. S. Iordanescu, G. Simion, C. Anton, **A. Müller**, "Broadband microwave PIN diode attenuators", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, 1998 pp. 601-604
55. **A. Müller**, I. Petrini, R. Marcelli, et al. "Dielectric and semiconductor membranes as support for microwave circuits" **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 1997, pp. 549-552
56. S. Simion, G. Bartolucci, R. Marcelli, **A. Müller**, B. Szentpali, F. Riesz, "Nonlinear transmission lines on GaAs membranes for picosecond and large amplitude shockwaves generation", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 1997, pp.353-356



57. **A. Müller**, I. Petrini, S. Iordanescu, V. Avramescu, R. Marcelli "Dielectric membranes manufactured by isotropic etching of <111>; oriented silicon for microwave applications" **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 1998, pp 341-344
58. **A. Müller**, S. Simion, M. Dragoman, S. Iordanescu, I. Petrini, C. Anton, D. Vasilache, V. Avramescu, A. Corici, F. Craciunoiu, "Passive devices on GaAs substrate for MMICs applications", **Proc of IEEE International Semiconductor Conference, CAS**, Sinaia, Romania, 1996, pp. 185-188

#### **Listă lucrări prezentate la conferințe indexate BDI**

59. **A. Müller**, G. Konstantinidis, A. Dinescu, A. Stefanescu, A. Cismaru "Single resonator GaN/Si SAW based temperature sensor" **Nanotech Conference&Expo 2013**, Washington, vol. 2, pp. 423-426
60. D. Vasilache, G. Konstantinidis, D. Neculoiu, C. Morosanu, A. Stavriniadis, A. Kostopoulos, A. Cismaru, C. Buiculescu, **A. Müller** "Micromachined AlN based FBAR structures" Proc of Micromechanics Europe **MME 2007, 16-18 Sept, Guimaraes, Portugal**, pp. 39-42
61. K. Mutamba, D. Neculoiu, **A. Müller**, G. Konstantinidis, D. Vasilache, C. Sydlo, A. Kostopoulos, A. Adikimenakis, A. Georgakilas and Hans L. Hartnagel "Micromachined GaN-based FBAR Structures for Microwave Applications" **Proc of Asia Pacific Microwave Conference, Yokohama**, 2006, pp 3-1757-1760
62. D. Neculoiu, G. Konstantinidis, **A. Müller**, A. Stavriniadis, D. Vasilache, Z. Chatzopoulos, L. Bary, and R. Plana, "Design and Characterization of a 45 GHz Yagi-Uda Antenna Receiver Fabricated on GaAs Micromachined Membrane" **Proc of Asia Pacific Microwave Conference, Yokohama**, Dec 2006, pp 3-1653-1656
63. D. Neculoiu, **A. Müller**, D. Vasilache, G. Konstantinidis, A. Stavriniadis, P. Pons, L. Bary, R. Plana "Membrane supported Yagi-Uda mm-wave antennas" **European Conference on Antennas and Propagation, Nice, France, 9-10 Nov**, 2006, pp 78-79
64. D. Neculoiu, P. Pons, R. Plana, P. Blondy, **A Müller**, D. Vasilache "MEMS antennas for millimeter-wave applications" **Micromachining and Microfabrication**, 2001, pp.66-72
65. R. Marcelli, **A Müller**, F. Giacomozzi, G. Bartolucci, "Micromachined coplanar microwave components: technology and modeling" **European Society for Precision Engineering and Nanotechnology EUSPEN, International Conference**, Turin, Italy, May 27 - 31, 2001
66. R. Marcelli, G. Bartolucci, S. Iordanescu, **A. Müller**, "Modeling of bulk and micromachined lumped elements for microwave and millimeter wave frequencies", **Proc. 22<sup>nd</sup> International Semiconductor Conference - CAS'99, Sinaia**, Oct. 1999, pp. 439-442
67. **A Müller**, I. Petrini, R. Rizescu, V. Avramescu, "Planarization techniques in GaAs processing", **Proc. 18<sup>th</sup> International IEEE Conf. CAS'95, Sinaia**, 1995, pp. 313-316

#### **Listă lucrări prezentate la alte conferințe**

68. **A. Müller**, G. Konstantinidis, A. Dinescu, A. Stefanescu, A. Stavriniadis, V. Buiculescu, A. Ziaei "Progress in manufacturing of GaN SAW devices resonating in the GHz frequency", **Smart System Integration**, session "Advanced micro and nano technologies", Vienna, March 2014
69. **A. Müller**, G. Konstantinidis, A. Dinescu, A. Stefanescu, A. Cismaru, I. Giangu, A. Stavriniadis, T. Kostopoulos, V. Buiculescu "Novel high sensitivity GaN SAW based temperature sensor structures working in the GHz frequency range" **Proc of 2013 EMRS Conference**, 2013
70. A. Stefanescu, D. Neculoiu, **A. Müller**, G. Konstantinidis, T. Kostopoulos, A. Stavriniadis, I. Petrini, D. Dascalu "New Developments on GaN membrane FBARs" **Proc of MEMSWAVE**, 2012
71. A. Cismaru, **A. Müller**, G. Konstantinidis, M. Purica, F. Comanescu, A. Dinescu, A. Stefanescu, A. Stavriniadis "Deflection and stress analysis of GaN and AlN thin membranes" **Proc of 2012 EMRS Conference**, 2012

72. A. Cismaru, **A. Müller**, G. Konstantinidis, M. Purica, F. Comanescu, A. Dinescu, A Stavriniadis, A. Stefanescu "Microphysical characterization of micromachined GaN/Si based structures used in acoustic and photonic device" 22<sup>nd</sup> **Proc of Micromechanics and Microsystems Technology Europe MME 2011**, paper D 64
73. **A. Müller**, G. Konstantinidis, M. Androulidaki, A. Dinescu, A. Stefanescu, D. Neculoiu A. Cismaru and A. Stavriniadis "Metal-Semiconductor-Metal UV Photodetectors Manufactured Using Micromachining and Nano-lithographic Technologies of GaN/Si", **EMRS 2011**
74. **A. Müller**, D. Neculoiu, A. Dinescu, A Cismaru, A. Stefanescu, C.Buiculescu, I Petrini, G. Konstantinidis, A. Stavriniadis, G. Deligeorgis, T. Kostopoulos, "FBAR and SAW devices on GaN/Si operating in the GHz frequency range" **Proc of Smart System Integration Conference**, Dresden 22-23 March 2011, Digital proceedings paper 13
75. **A. Müller**, G. Konstantinidis, D Neculoiu, A. Dinescu, A Stavriniadis, G. Deligeorgis, A. Cismaru, D Vasilache, M. Dragoman, A. A. Muller, A. Stefanescu, "*Progresses in manufacturing of acoustic devices for GHz applications based on GaN/Si*" **Proc. of EMRS 2010**, Strasbourg p G-3
76. **A. Müller**, G. Konstantinidis, D. Neculoiu, A. Dinescu, A. Stavriniadis, D. Vasilache, M. Dragoman, M. Kayambaki, M Androulidaki, G. Deligiorgis, A. Cismaru, K. Tsagaraki, C Buiculescu, I. Petrini, M Danila A. A. Müller "Acoustic devices and UV photodetectors based on micromachining and nanoprocessing of GaN/silicon" **IEEE Sensors, MEMS and Electro-optic Systems (SMEOS) Conference 2009, South Africa**, 2009
77. A. K. Pantazis, E. Gizeli, D. Vasilache, E. Aperathitis, **A. Müller**, G. Konstantinidis, "Micromachined III-N Acoustic Devices for Bacteria Detection", **Proc of MEMSWAVE 2009** (10<sup>th</sup> International Symposium on RF MEMS and RF Microsystems) Trento, Italy, 2009
78. **A. Müller**, G. Konstantinidis, D. Neculoiu "Membrane supported microwave and millimeter wave circuits based on III-Vs micromachining", **Proceedings of IEEE COMCAS**, Tel Aviv, May 2008
79. **A. Müller**, D Neculoiu, G. Konstantinidis, A Dinescu, C. Morosanu , A. Kostopoulos A. Stavriniadis, M Dragoman, G. Sajin, A Pantazis, A Cismaru "New Developments on AlN based FBAR and SAW Structures for Applications in the GHz Range", **MRS Spring Meeting 2008**, San Francisco, 2008, p. 135
80. **A. Müller** „Microwave, Millimetre Wave Devices based on Micro-Electro-Mechanical Systems (MEMS) for Advanced Communication Systems", **Proc of 14<sup>th</sup> World Micromachine Summit**, Daejeon, Korea, 2008
81. **A. Müller**, G. Konstantinidis, M. Dragoman, D Neculoiu, A. Dinescu, M. Androulidaki, M. Kayambaki A. Stavriniadis, D. Vasilache, C Buiculescu, I. Petrini, A. Kostopoulos „GaN membrane supported UV photo-detectors manufactured using nano-lithographic processes", **Proc of EMRS 2008**, Strasbourg, 2008
82. **A. Müller**, D. Neculoiu, A Dinescu, C. Morosanu, G. Konstantinidis, D Vasilache, M Dragoman, G. Sajin "GHz SAW and FBAR devices manufactured using micromachining and nanoprocessing of wide band gap semiconductors", "Seminarul national de nanostiinta si Nanotehnologie", Romanian Academy Bucharest, 2008
83. **A. Müller**, G. Konstantinidis, M. Dragoman, D Neculoiu, A. Dinescu, M. Androulidaki, M. Kayambaki, A. Stavriniadis, D. Vasilache, C Buiculescu, I Petrini, A. Kostopoulos "GaN membrane supported MSM ultraviolet photodetector", **Proc of MEMSWAVE Conference**, Greece 2008
84. D Neculoiu, **A. Müller**, G Konstantinidis C Morosanu, D.Vasilache, A.Kostopoulos, A. Stavriniadis "Modelling an Fabrication of FBARs based on Nitrides Micromachined Membranes", **Proc of MEMSWAVE Conference**, Greece 2008
85. A. Takacs, D. D.Neculoiu, D. Vasilache, **A. Müller**, P. Pons, L. Bary, P. Calmon, R. Plana, H. Aubert "Tunable bandstop MEMS Filters for Ka and V-Band Applications" **Proc of the MEMSWAVE Conference**, Barcelona, Spain, 2007 pp.147-150
86. D.Neculoiu, G.Konstantinidis, D. Neculoiu, G. Konstantinidis, T. Vaha-Heikkila, **A. Müller**, D. Vasilache, A. Staviniadis ,L. Bary, M. Dragoman, I. Petrini, C. Buiculescu, Z. Hazoupulos, N.

- Kornilios, P. Pursula, R. Plana, D. Dascalu "GaAs membrane Supported 60 GHz Receiver with Yagi-Uda antenna" **Proc of the MEMSWAVE Conference**, Barcelona, Spain, 2007, pp15-18
87. Andrei A. Muller, D. D.Neculoiu, D. Vasilache, A. Cismaru, P. Pons, R. Plana, L. Bary, **A. Müller** "Novel microachined lumped element bandpass filter with an additional zero in the bandstop, for WLAN 5200 applications", **Proc of MEMSWAVE Conference**, Barcelona, 2007, pp. 151-154
88. **A. Müller**, D Neculoiu, G Konstantinidis and R Plana: "Membrane supported millimeter wave circuits based on silicon and GaAs micromachining", **Proc of Mediterranean Microwave Symposium**, Genova, Italy, September 2006, pp 281-284
89. Andrei A. Muller, D. Neculoiu, D. Vasilache, A. Takacs, A. Cismaru, P.Pons, **A. Müller** "Micromachined bandpass filter with improved bandstop response for WLAN 5.2 GHz", **Proc of Micromechanics Europe MME 2006**, Southampton, Sept 2006, pp 125-128
90. D. Vasilache, M. Dragoman, G. Constantinidis, Y. Psychias, F. Vladioianu, A. Kostopoulos, C. Tibeica, L. Barry, A. Cismaru, D. Neculoiu, C. Buiculescu, I. Petrini, R. Plana, **A. Müller** "Millimeter wave MEMS switch for 60 GHz band", **Proc of Micromechanics Europe MME 2006**, Southampton, Sept 2006, pp 213-21674.
91. D. Neculoiu, A. A. Muller, D. Vasilache, I. Petrini, C. Buiculescu, A. Takacs, **A. Müller**, D Dascalu, F. Giacomozzi, L. Bary, R.Plana, "Compact lumped elements micromachined band-pass filters with discrete switching for 1.8/5.2 GHz applications", **Proc of the MEMSWAVE Conference**, 2006, pp39-43
92. A Staviniidris, **A. Müller**, D.Neculoiu, G.Konstantinidis, D.Vasilache, M.Dragoman, I.Petrini, C.Buiculescu, Z. Chatzopoulos, L.Bary, R.Plana, "GaAs membrane-supported Yagi-Uda antenna 45 GHz receiver", **Proc of the MEMSWAVE Conference**, 2006, pp 16-20
93. D. Neculoiu, **A. Müller**, D. Vasilache, D.Dascalu, G. Konstantinidis, A. Kostopoulos, A. Adikimenakis, A. Georgakilas, K. Mutamba, H. L. Hartnagel, "New developments of GaN membrane based FBAR structures", **Proc of the MEMSWAVE Conference**, 2006, pp.51-54
94. **A. Müller**, D Neculoiu, G Konstantinidis and R. Plana, "Membrane supported millimeter waves circuits based on Silicon and GaSa micromachining", Proc. Of **CMOS Emerging Technologies Workshop, Research & Business Opportunities Ahead**, July 2006, Banff, Alberta, Canada
95. F. Giacomozzi, B.Margesin, I. Petrini, D. Vasilache, D. Neculoiu, C. Buiculescu, **A. Müller**, "Surface and Bulk Micromachining Techniques for Lumped Components Filters Manufacturing" **Proc.of MEMSWAVE 6<sup>th</sup> Workshop** 2005, pp. 169-172
96. I S Kim, J S S Dong, B K Min, W J Lee, **A. Müller** "A study on the design and characteristics of thin-film L-C Band pass filter", **Proc of KIEE International Transactions on Electrophysics and Applications** Vol 5-C, No 4, 2005
97. Takacs, F. Giacomozzi, G.Konstantinidis, A.A. Müller, I. Petrini, L. Barry, B. Margesin, D. Vasilache, C. Buiculescu, **A. Müller**, D. Neculoiu, "Design and realization of lumped components for micromachined filter applications", **Proc.of 16<sup>th</sup> MICROMECHANICS EUROPE – Workshop** 2005, pp 64 – 67
98. D. Neculoiu, G. Konstantinidis, K. Mutamba, A. Takacs, C. Sydlo, T. Kostopoulos, A. Stavrinidis, **A. Müller**, "Electromagnetic modeling of GaN FBAR structures", **Proc. of MEMSWAVE 6<sup>th</sup> Workshop** 2005, pp. 63-66
99. **A. Müller** "GaAs Microsystem for millimeter wave range", **WGAAS-Workshop on Advanced Microsystem for RF and Millimeterwave Communications**, European Microwave Week **2005**
- 100.G. Konstaninidis, **A. Müller**, Z. Chatzopoulos, D. Neculoiu, A. Kostopoulos, A. Georgakilas, A. Adikimenakis, D. Vasilache, A. Pantazis, M. Lagadas, "Design and Technology for III-V (arsenides, nitrides) Membrane Supported Yagi-Uda Antennae for 45 and 60 GHz", **Proc. Of MEMSWAVE 5<sup>th</sup> Workshop** 2004, pp D10-D15
- 101.M. Saadaoui, P. Pons, A. Boukabache, D. Dubuc, K. Grenier, R. Plana, L. Bary, P.Dubreuil, **A. Müller**, D. Neculoiu, "Dry Plus Etching for Micromachined in Plane Radiation Antennas", **MEMSWAVE 5<sup>th</sup> Workshop** 2004, E1-E5

102. M. Saadoui, P. Pons, A. Boukabache, D. Dubuc, K. Grenier, R. Plana, L. Bary, P. Dubreuil, **A. Müller**, D. Neculoiu, "Dry Plus Etching for Micromachined in Plane Radiation Antennas", **15<sup>th</sup> MICROMECHANICS EUROPE – Workshop 2004**, pp. 123-126
103. **A. Müller**, D. Neculoiu, M. Saadaoui, P. Pons, L. Bary, D. Vasilache, C. Buiculescu, O. Andrei, I. Petrini, D. Dascalu, R. Plana, Millimeter Wave Hybrid Receiver with Membrane Supported Endfire Antenna, **MEMSWAVE 5<sup>th</sup> Workshop 2004**, pp. E10-E13
104. D. Neculoiu, **A. Müller**, P. Pons, L. Bary, M. Saadaoui, C. Buiculescu, I. Petrini, O. Andrei, R. Plana, D. Dascalu,, "A 15-45GHz Frequency Multiplier Integrated With a Micromachined Yagi-Uda Antenna", **Proc. of MEMSWAVE 5<sup>th</sup> Workshop 2004**, pp. E6-E9
105. G. Konstantinidis, **A. Müller**, D. Vasilache, M. Lagadas, G. Deligeorgis, L. Bary, R. Plana, I. Petrini, C. Buiculescu, N. Kornilios and D. Neculoiu, "Recent Developments in Millimeter Wave Circuits Supported on Thin GaAs Membranes", **Proc. of 3<sup>rd</sup> ESA Workshop**, Espoo, Finland, 2003, pp.497-503
106. M. Saadaoui, **A. Müller**, P. Pons, D. Neculoiu, L. Bary, D. Dubuc, K. Grenier, L. Rabbia, C. Buiculescu, I. Petrini and R. Plana, "New technologies based on dry and dry followed by wet backside etching processes for endfire membrane supported millimeter wave antennae manufacturing", **Proc of Micromechanics Europe (MME) 2003**, pp 143-146
107. **A. Müller**, M. Saadaoui, P. Pons, L. Bary, D. Neculoiu, F. Giacomozzi, D. Dubuc, K. Grenier, D. Vasilache and R. Plana, Fabrication of silicon based micromachined antennas for millimeter-wave applications, **Proc of MEMSWAVE Workshop 2003**, p. D15-18
108. D. Neculoiu, G. Bartolucci, P. Pons, L. Bary, D. Vasilache, G. Konstantinidis, **A. Müller** and R. Plana, Membrane-supported coupled-line filters for the 45GHz frequency band, **Proc of MEMSWAVE Workshop 2003**, p. B13-16
109. G. Konstantinidis, **A. Müller**, Z. Chatzopoulos and M. Lagadas, Monolithic millimeter wave receivers based on III-arsenides micromachining, technological developments from 38 to 77GHz, **Proc of MEMSWAVE Workshop 2003**, p. F37-41
110. D. Vasilache, M. Rusu, M. Dragoman, **A. Müller**, M. Cherestes, C. Buiculescu, R. Enachescu, F. Vladoianau, I. Dragan, "Micromachined sensing structures based on tunnelling effect", **Proc of MicroMechanics Europe 2002**, pp. 225-228
111. **A. Müller**, R. Marcelli, I. Petrini, V. Avramescu, S. Iordanescu, S. Petrocco "Dielectric and semiconductor membranes as support for lumped elements and coplanar waveguides" Proc. Micromechanics Europe **Workshop MME '97**, Southampton, UK, pp.59-62
112. S. Simion, S. Iordanescu, M. Dragoman, **A. Müller**, B. Szentpali, K. Somogyi, F. Reisz, "18-34 GHz second harmonic generation using a graded nonlinear transmission line", **Proc. 17<sup>th</sup> Annual Semiconductor Conf. CAS'94**, Sinaia, pp. 367-370.
113. **A. Müller**, Ioana Petrini, M. Catoiu, F. Craciunoiu, Raluca Muller, "X-band Gunn devices manufacturing", **Proc. 17<sup>th</sup> Annual Semiconductor Conference, CAS'94**, Sinaia, , pp. 119-122.
114. S. Szentpali, K. Somogyi, F. Reisz, S. Varga, F. Craciunoiu, M. Dragoman, S. Iordanescu, **A. Müller**, S. Simion – "Schottky Diode nonlinear transmission line CPW MMIC", **Proc. of CAS'93**, Sinaia, Romania, pp. 97-100.
115. J. Genoe, K. Fobelets, C. van Hoof, **A. Müller**, R. Mertens, and G. Borghs – "The concept of quantum capacitance and its influence on Resonant Tunneling Transistors", **Proc. of CAS'92**, Sinaia, Romania, pp. 199
116. **A. Müller**, J. Genoe, G. Borghs – "Experimental Determination of Minority Electron Mobility in Heavy Doped p GaAs using a Narrow Base Pin Diode as Test Structure", **Proc. of CAS'92**, Sinaia, Romania, pp. 391-394

## Cărți și volume de carte

### Cărți în edituri naționale

#### Nr. Titlu, autori

- 1 “Dispozitive și circuite de microunde – Aplicații”, Printech (UPB), ISBN 973-652-287-3, 2001, autori D. Neculoiu, **A. Müller**

### Capitole din volume în edituri internaționale

#### Nr. Titlu, autori

- 1 **Capitol** „Membrane supported millimeter wave circuits based on silicon and GaAs micromachining” pp 631-654, Autori: **A. Müller**, D. Neculoiu, G. Konstantinidis and R. Plana in vol. „**Wireless Technologies, Circuits, Systems and Devices**” **CRC Press Taylor&Francis Group, 2007**, Editor K. Iniewski, ISBN 9780849379963 0849379962
- 2 **Capitol** „Microwave and Millimetre Wave Devices based on Micromachining of III-V Semiconductors” pp.75-87 Autori: **A. Müller**, D. Neculoiu, G. Konstantinidis, T Vaha Heikkila in vol. „**Advanced materials and technologies for micro/nano-devices, sensors and actuators**” **NATO Science for Peace Series, Springer 2010**, Editori: E. Gusev, E. Garfunkel, A Dideikin ISBN 978-90-481-3806-7, ISSN 1874-6500

### Capitole din volume în edituri naționale

#### Nr. Titlu, autori

1. **A. Müller**, D. Neculoiu, A. Stavrinidis, T. Kostoupoulos, A. Dinescu, A. Cismaru, D. Vasilache, G. Deligiorgis, C. Buiculescu, A.A.Müller, I. Petrini, D. Dascalu și G. Konstantinidis, „**Recent progresses in acoustic devices on GaN/Si**”, Vol. “Microwave circuits and devices based on MEMS technologies”, Editura Academiei Romane, Bucuresti Seria “Micro and Nanoengineering”, 2011, ISBN 978-973-27-2068-4, pp. 359-365
2. **A. Müller**, D. Neculoiu, G. Konstantinidis, D. Vasilache, A. Dinescu, A. Stavrinidis, G. Deligiorgis, M. Danila, K. Tzagaraki, M. Dragoman, A. Cismaru, C. Buiculescu, I. Petrini, A.A. Muller, D. Dascalu, “**Acoustic Devices for GHz Applications Based on Micromachining and Nanoprocessing of GaN/Silicon**”, Vol. “Microwave and millimeter wave MEMS”, Editura Academiei Romane, Bucuresti Seria “Micro and Nanoengineering”, 2010, ISBN: 978- 973-27-1916-9, pp. 103-111
3. **A. Müller**, D. Neculoiu, M. Saadaoui, P. Pons, L. Bary, C. Buiculescu, A.Ovidiu, I.Petrini, D.Dascalu and R. Plana, “**Millimeter wave hybrid receiver with membrane supported endfire antenna**”, vol. “Advanced MEMS for RF and millimeter wave communications”, Editura Academiei Romane, Bucuresti Seria “Micro and Nanoengineering”, 2005, ISBN 973-27-1196-5, pp. 120-127,
4. **A. Müller**, G. Constantinidis, D. Neculoiu, D. Vasilache, M. Lagadas, G. Deligeorgis, “**GaAs micromachining for millimeter wave applications**”, vol. “Radio frequency MEMS”, Editura Academiei Romane, Bucuresti Seria “Micro and Nanoengineering”, 2003, ISBN 973-27-0979-0, pp. 25-33,
5. **A. Müller**, D. Neculoiu, F. Giacomozzi, I. Petrini, C. Buiculescu, D. Vasilache, M. Dragoman, V. Avramescu, D. Dascalu, M. Zen, “**Silicon based micromachined receiving module for 38 GHz with bonded GaAs Schottky detector diode**”, Vol. “Micromachined microwave devices and circuits”, Editura Academiei Romane, Bucuresti Seria “Micro and Nanoengineering”, 2002, ISBN-13: 9789732709085



### **Proiecte Internaționale (coordonator/partener)**

**FP4** European Project No 977131 –Micromachined Circuits for Microwave and Millimeter Wave Applications” acronim **MEMSWAVE (1998-2001) Coordonator al proiectului**

**FP7-REGPOT-2007** project No20289 “European Centre of Excellence in Microwave, Millimetre Wave and Optical Devices, based on Micro-Electro- Mechanical Systems for Advanced Communication Systems and Sensors – **MIMOMEMS” (2008-2011) Coordonator al proiectului**

**H2020 Marie Curie** “Integrated Crossbar of Microelectromechanical Selectors and Non-Volatile Memory Devices for Neuromorphic Computing” **SelectX (2016-2018) Coordonator al proiectului**

**Proiect ESA (European Space Agency):** Contract No. 40000115202/15/NL/CBi “Microwave filters based on GaN/Si SAW resonators, operating at frequencies above 5 GHz” **(2015-2017) Coordonator al proiectului**

**FP6 NoE in RF MEMS/Retea de excelenta in RF MEMS AMICOM (2004-2007) Coordonator al echipei din Romania**

**FP7-ICT-2011-7** contract nr. 288801, “Smart integration of high power electronics for industrial and RF applications”, acronym **SMARTPOWER (2011-2016), Coordonator al echipei din Romania**

**ENIAC Call 2009** “Micro and nano technologies based on wide band gap materials for future transmitting receiving and sensing systems – **MERCURE” (2010-2014) Coordonator al echipei din Romania**

**ENIAC Call 2008** “Nanoelectronics for Safe, Fuel Efficient and Environment Friendly Automotive Solutions” – **SE2A (2008-2012), Coordonator al echipei din Romania**

**Proiect COST** contract: Action MP0805, “Novel Gain Materials and Devices Based on III-V-N Compounds”, **(2009-2012) Coordonator al echipei din Romania**

### **Proiecte Naționale (coordonator)**

**MATNANTECH** “Tehnologii de realizare a microsistemelor pentru comunicatii bazate pe compusi AiiiBv si noi materiale polyimidice” – **COMPOLIMEMS (2001-2004)**

**MATNANTECH** “Circuite de receptie in domeniul undelor milimetrice fabricate prin microprelucrarea siliciului”, – **SIRMEMS (2002-2005)**

**MATNANTECH** “Centru de excelenta RF MEMS” **(2002-2005)**

**MATNANTECH** “Filtre reconfigurabile microprelucrate pe siliciu pentru comunicatii in unde milimetrice” **FIREMEMS (2004-2006)**

**CEEX-** “Microsisteme integrate de tip RF MEMS realizate pe siliciu, galiu-arsen si semiconductori de banda larga pentru aplicatii in domeniul comunicatiilor avansate” **ACOMEMS (2006-2009)**

**PN II, Capacitati** “Sistem de caracterizare microfizica si in unde milimetrice a componentelor si circuitelor pentru comunicatii avansate”-**SIMCA, in valoare de 2.017.000 lei (~ 500 000 EUR), for full Infrastructure. Echipamentele au fost cumparate si sunt functionale (2007-2009)**

**PN II, Parteneriate,** “Circuite avansate pentru microunde, unde milimetrice si fotonice utilizand tehnologii MEMS”-**MIMFOMEMS (2007 – 2010)**

**PN II, Parteneriate,** “Rezonatori de tip SAW si FBAR dedicati aplicatiilor in comunicatii pentru gama 2-6 GHz si in domeniul senzorial, obtinuti prin tehnici de microprelucrare si nanoprocesare a semiconductoarelor de banda larga (GaN si AlN)” – **Acronim GIGASABAR (2008-2011)**

**PN II, Idei, cercetare exploratorie** „Tehnologii noi bazate pe microprelucrarea si nanoprocesarea GaN/Si pentru dispozitive de microunde si dispozitive fotonice avansate” **(2011-2016)**

**PN II, Parteneriate** „Senzor de temperatura bazat pe dispozitiv SAW in gama GHz realizat pe AlN/Si” - **SETSAL (2014-2017)**

**ROSA\_STAR** “Diode Schottky, detectoare si mixere pentru unde milimetrice si submilimetrice realizate pe GaAs”-**M3GAAS (2013-2016)**

### **Proiecte internaționale (membru în echipa din Romania)**

**FP7 STREP No 204101**“MEMS 4 MMIC” **(2008-2011)**

**ENIAC JIU (ENIAC-2010-1)** "Reconfigurable Microsystem Based on Wide Band Gap Materials, Miniaturized and Nanostructured RF-MEMS"- **NANOCOM (2011-2015)**

**NANO RF** "Carbon based Smart Systems for Wireless Applications" **(2012-2015)**

**Proiect ESA (European Space Agency): Contract No. 4000110819/CBi** "0-level encapsulation of reliable MEMS switch structures for RF applications", **2014 – 2016**

**Proiecte naționale (membru în echipă)**

**PARTENERIATE – ctr 5/2012** "Instrumente si metodologii avansate pentru modelarea multifizica si simularea micro comutatoarelor de radio frecventa" **Coord UPB, IMT partner, (2012-2016)**

**PARTENERIATE - ctr 331/2015** "Sistem de incapsulare pe placheta pentru structuri MEMS" **(2015 – 2017)**

**PN I Matnantech** "Micromachined switch structures for millimeter waves communications"-**SECOM (2003-2005)**

**Proiecte Bilaterale Interguvernamentale –responsabil IMT**

**CNR Rome (1997-1999)**

**FORTH IESL Heraklion (1996-1998)**

**IRST Trento (2000-2002)**

**FORTH IESL Heraklion (2000-2002)**

**LAAS Toulouse (2003-2004)**

**University of Pretoria, Carl & Emily Fuchs Institute for Microelectronics, South Africa (2008-2011)**

**Korea Electrotechnology Research Institute- KERI Changwon (2010-2011)**

**University of Johannesburg, South Africa (2016-2017)**