

FORMAT
EUROPEAN
CURRICULUM VITAE



INFORMATII PERSONALE

Nume
Adresa
Nationalitate
Data nasterii

BREZEANU GHEORGHE

Bucuresti, sector 6,

Romana

29 octombrie 1948

EXPERIENTA PROFESIONALA

- Perioada
- Numele si adresa angajatorului
- Tipul activitatii sau Sector de activitate
- Functia sau postul ocupat
- Principalele activitati si responsabilitati

1972 - 2009

UNIVERSITATEA POLITEHNICA BUCURESTI, FACULTATEA DE ELECTRONICA
TELECOMUNICATII SI TEHNOLOGIA INFORMATIEI, *SECTOR 6 , SPLAIUL
INDEPENDENTEI 313*

Activitate universitara de invatamant si cercetare

Profesor universitar

Activitate didactica :

profesor la urmatoarele discipline:

- **Dispozitive electronice**
- **Circuite Electronice Fundamentale**
- **Contactul Metal Semiconductor in Microelectronica**
- **Circuite Integrate de Joasa Tensiune si Mica Putere**
- **Circuite microelectronice si nanoelectronice**

Conducere doctorate

- specialitatea **Inginerie in electronica si telecomunicatii** din 1994.
- **13 doctoranzi si 6 programe de doctorat finalizate.**

Activitate stiintifica

- **4** carti;
- **12** manuale universitare;
- **2** capitole in cărți publicate la edituri din străinătate
- **66** lucrari publicate in reviste de specialitate (**36** cotate ISI);
- **113** comunicari publicate volumele conferintelor din care **77** la conferinte internationale cotate ISI;
- **22** comunicari stiintifice prezentate la conferinte (nepublicate);
- **4** brevete de inventie.
- **13** lucrari invitate
- **22** contracte /proiecte (director de proiect) din care **4** internationale

Activitate de cercetare in domeniile :

- **Dispozitive de microunde:** teorie, modelare, tehnologie;
- **Contactul metal-semiconductor** pentru dispozitive semiconductoare si circuite integrate: analiza microscopica,

caracterizare electrica, modelare, tehnologie;

- **Diode Schottky:** proiectare, caracterizare, modelare, noi tehnologii de fabricatie;
- **Dispozitive de putere pe carbura de siliciu si diamant:** modelare, simulare, proiectare si caracterizare.

Functii de conducere:

- **Secretar Stiintific** al Facultatii Electronica si Tc. din 1996 (ales in 4 legislaturi)
- **Adjunct Sef de Catedra DCAE** 1992- 2008 (ales in 4 legislaturi)

Experienta ca expert /evaluator

- **Director** la programul national MATNANTECH – Subprogramul 7 – *Micro, nanoelectronica si optoelectronica* din 2001
- **Expert evaluator/Monitor** la programele: ORIZONT, MATNANTECH, RELANSIN, CNCSIS, CEEEX din 1996
- **Membru** in comisia de *Stiinte ingineresti* a CNCSIS din 2005
- **Vice-technical chair** la International Semiconductor Conference din 2005

- Numele si adresa angajatorului
- Tipul activitatii sau Sector de activitate
- Functia sau postul ocupat

- Principalele activitati si responsabilitati

EDUCATIE SI FORMARE

- Perioada
- Numele si tipul institutiei de invatamant si al organizatiei profesionale prin care s-a realizat formarea profesionala
- Domeniul studiat/aptitudini ocupationale
- Tipul calificarii/Diploma obtinuta
- Nivelul de clasificare a formei de instruire/invatamant

1967-1972

UNIVERSITATEA POLITEHNICA BUCURESTI, FACULTATEA DE ELECTRONICA TELECOMUNICATII

Inginerie in electronica si telecomunicatii

Inginer

Invatamant superior

- Perioada
- Numele si tipul institutiei de invatamant si al organizatiei profesionale prin care s-a realizat formarea profesionala
- Domeniul studiat/aptitudini ocupationale
- Tipul calificarii/Diploma obtinuta
- Nivelul de clasificare a formei de instruire/invatamant

1976-1981

UNIVERSITATEA POLITEHNICA BUCURESTI, FACULTATEA DE ELECTRONICA TELECOMUNICATII

Inginerie in electronica si telecomunicatii

Doctor -Inginer

Invatamant superior

- Perioada

- Numele si tipul institutiei de invatamant si al organizatiei profesionale prin care s-a realizat formarea profesionala
- Domeniul studiat/aptitudini ocupationale
- Tipul calificarii/Diploma obtinuta
- Nivelul de clasificare a formei de instruire/invatamant

APTITUDINI SI COMPETENTE PROFESIONALE

Dobandite in cursul vietii si carierei dar care nu sunt recunoscute neaparat printr-un certificate sau o diploma.

LIMBA MATERNA

Romana

LIMBI STRAINE CUNOSUTE

Engleza Spaniola

- abilitatea de a citi
- abilitatea de a scrie
- abilitatea de a vorbi

Foarte bine
Bine
BINE

- abilitatea de a citi
- abilitatea de a scrie
- abilitatea de a vorbi

Foarte bine
bine
bine

APTITUDINI SI COMPETENTE SOCIALE

Competente sociale :

- Cooperant,cu multi prieteni;
- Simtul umorului dezvoltat, antrenant la intruniri colegiale, prietenesti

APTITUDINI SI COMPETENTE
ORGANIZATORICE

Competente organizatorice:

- Organizarea simpozionului stiintific al programului MATNANTECH, ce a avut 13 editii;
- Initierea si supervizarea de sectiuni speciale pentru tineri la conferinta CAS si simpozionul MATNANTECH;
- Crearea si conducerea laboratorului de *Dispozitive pe SiC*;
- Organizarea concursul profesional pentru studenti Tudor Tanasescu (ultimele 10 editii);
- Conducerea si indrumarea multor studenti la proiecte de diploma si programe doctorat.

APTITUDINI SI COMPETENTE
TEHNICE

Competente:

Nanoelectronica, Microelectronica:

- strategie, invatare-dezvoltare;
- simulare, modelare, caracterizare si testare;
- supervizare, evaluare, monitorizare
- referent stiintific la revistele de prestigiu **IEEE Transactions on Electron Devices**, **IEEE Electron Devices Letters** si **Solid State Electronics**

Produse si tehnologii:

- *Dispozitive pe carbura de siliciu si diamant fabricate*, pentru prima oara in Romania
- *Tehnologii pentru dispozitive pe carbura de siliciu si diamant*
- *Tehnologii pentru dispozitive unipolare pe Siliciu*
- *Sistem de masura si achizitie de date pentru dispozitive de putere*
- *Sistem de masura contactelor ohmice*

Modele fizice

- *Terminatia cu profil rampa de oxid pentru dispozitive de putere*
- *Modele pentru dispozitive pe semiconductori de banda larga*
- *Modele pentru dispozitive avansate pe siliciu*

ALTE APTITUDINI SI
COMPETENTE

PERMIS DE CONDUCERE

Categoria B din 1982

MONOGRAPHTIES - UNIVERSITY BOOKS

1. D. Dasc`lu, M. Profirescu, **G. Brezeanu**, I. Costea, E. Sofron, M. Ionescu, Gh. }tefan - "*Circuite Electronice - Culegere de probleme*", Litografia I.P. Bucure]ti, 1980.
2. D. Dasc`lu, Gh. }tefan, **G. Brezeanu**, A. Rusu, M. Profirescu, E. Sofron, D. Steriu, M. Ionescu, R. Dragomir, M. Bodea - "*Dispozitive si Circuite Electronice - Probleme*", Editura didactic` ji Pedagogic`, Bucure]ti, 1982.
3. D. Steriu, **G. Brezeanu**, E. Olteanu, M. Profirescu, E. Sofron - "*Dispozitive si Circuite Electronice - {ndrumar de laborator*", Litografia I.P. Bucure]ti, 1983.
4. M. Dr`g`nescu, D. Dasc`lu, **G. Brezeanu** (editori) - "*Microelectronica*", Editura Academiei Rom@ne, Bucuresti, 1987.
5. D. Dasc`lu, **G. Brezeanu**, P. A. Dan - "*Contactul metal-semiconductor [n microelectronic`*", monografie, Ed. Academiei Rom@ne, Bucure]ti, 1988.
6. A. Rusu, Gh. }tefan, **G. Brezeanu** - "*Dispozitive si Circuite Electronice - Culegere de probleme pentru proiectare*", edi\ia I, Litografia I.P. Bucure]ti, 1988.
7. D. Steriu, T. Tebeanu, **G. Brezeanu**, N. S`ndulescu - "*Electronic` - {ndrumar de laborator*", Litografia Institutului de Subingineri, Pite]ti, 1988.
8. M. Bodea, A. Silard, P.A. Dan, M. Udrea, E. Popa, R. Dragomir, **G. Brezeanu** - "*Diode ji Tiristoare*", Editura Tehnic`, Bucure]ti, 1989.
9. D. Steriu, **G. Brezeanu**, E. Olteanu, M. Profirescu, E. Sofron - "*Dispozitive si Circuite Electronice - {ndrumar de laborator*", edi\ia a II-a, Litografia I.P. Bucure]ti, 1990.
10. A. Rusu, Gh. }tefan, **G. Brezeanu** - "*Dispozitive si Circuite Electronice - Culegere de probleme pentru proiectare*", edi\ia a II-a, Litografia I.P. Bucure]ti, 1991.
11. **G. Brezeanu** - "*Dispozitive si Circuite Electronice –{ndrumar de laborator*", partea a II-a, Litografia I.P. Bucure]ti, 1992.
12. D. Dascalu, **G. Brezeanu** (editori) - "*Noi cercetari in Microelectronica*", Editura Academiei Romane, Bucuresti, 1994 (ISBN 973-27-0489-6/8)
13. **G. Brezeanu**, "*Circuite electronice*", Editura Albastra, Cluj-Napoca, **editia I** – 1999, **editia II** – 2001 (ISBN 973-9443-02-8).
14. **G. Brezeanu**, G. Dilimot, F. Mitu, F. Draghici, "*Probleme de Dispozitive si Circuite Electronice*", Editura IT GRUP, Bucuresti, **editia I** – 2002, **editia II** – 2004, **editia III**- 2006 (ISBN 973-85715-2-9).
15. **G. Brezeanu**, G. Dilimot, F. Mitu, F. Draghici, "*Circuite electronice fundamentale - probleme*", Editura ALL BECK, Bucuresti, editia I – 2005 (ISBN 973-655-758-8).
16. **G. Brezeanu**, G. Dilimot, F. Mitu, F. Draghici, "*Circuite electronice fundamentale - probleme*", Editura Rosetti Educational, Bucuresti, editia II–2008 (ISBN 978-973-7881-39-7).

Capitole in c`r\i publicate la edituri din str`ain`tate

1. **G. Brezeanu**, "*New Terminations for Planar Schottky Structures (PSS)*", in **Frontiers in Nanoscale Science of Micron/Submicron Devices (NATO advanced study)**, Kluwer Academic Publishers, Kiev, Ukraine, Aug.1996, pp. 375-385. (ISBN 0-7923-4301-8).

2. M. Badila, **G. Brezeanu**, F. Mitu, "*Schottky Oxide Ramp Diodes*", in the **Wiley Encyclopedia of Electrical and Electronics Engineering**, vol. **18**, Wiley Interscience Publication (John Wiley & Sons, Inc) , New York, SUA, 1999, pp.710-718 (ISBN 0-471-13946-7).

PAPERS IN PERIODICALS

ISI Journals

1. .D. Dasc`lu, **G. Brezeanu** - " *Theory of VHF detection and frequency multiplication with space charge-limited current (SCLC) silicon diodes*", **Solid State Electronics**, vol. **18**, 1975, pp. 437-448.

2. D. Dasc`lu, **G. Brezeanu**, P.A. Dan - "*Effect of Si dissolution and recrystallization upon ohmic Al/p-Si contacts*", **Applied Physics Letters**, vol. **37**, 1980, pp. 215-217.

3. D. Dasc`lu, P.A. Dan, **G. Brezeanu**, C. Dima - "*Modelling electrical behaviour of non-uniform Al/Si Schottky diodes*", **Solid State Electronics**, vol. **24**, pp. 897-904, 1981.

4. **G. Brezeanu**, P.A. Dan, D. Dasc`lu, Al. Popa - "*Structure of chemically, deposited Ni/Si contacts*", **Journal of Electrochemical Society**, vol. **130**, 1983, pp. 2472 - 2477.

5. D. Dasc`lu, **G. Brezeanu**, P.A. Dan, M. Suciu - "*Charges in breakdown characteristics of planar Al/n-Si Schottky diodes during the postmetallization heat treatment*", **Solid State Electronics**, vol. **27**, 1984, pp. 359 - 365.

6. **G. Brezeanu**, C. C`buz, D. Dasc`lu, P.A. Dan - "*A computer method of calculations for the characterization of layer ohmic surface contacts*", **Solid State Electronics**, vol. **30**, 1987, pp. 527 - 532.

7. **G. Brezeanu**, D. Dasc`lu, P.A. Dan, S. Negru, V. Tr`istaru - "*Changes in electrical characteristics of Al - Ti contacts on silicon*", **Microelectronics and Reliability**, vol. **28**, pp. 205-211.

8. **G. Brezeanu**, P. A. Dan, " *Modelling of Gradual Interface Intimate Silicide/Si Schottky Contacts* " , **Solid State Electronics** , vol. **34**, 1991, pp. 95 - 105

9. M. Badila and **G. Brezeanu**, "*Double Epitaxial Layer Power Schottky Diodes with End in Ramp Oxide Technique*", **Microelectronics Journal**, vol. **27**, 1996, pp. 67-72.

10. J. Fernandez, P. Godignon, S. Berberich, J. Rebollo, **G. Brezeanu**, J. Millan, "*High Frequency Electrical Characteristics and Modelling of p-Type 6H-Silicon Carbide MOS Structure*", **Solid State Electronics**, vol. **39**, 1996, pp. 1359-1364.

11. M. Badila, **G. Brezeanu**, F. Mitu, G. Dilimot, "*High Frequency Bipolar Circuits*", **Microelectronics Journal**, vol. **29**, 1998, pp. 721-725.

12. **G. Brezeanu**, J. Fernandez, J. Millan, M. Badila, G. Dilimot, "*MEDICI Simulation of 6H-SiC Oxide Ramp Profile Schottky Structure*", **Material Science Forum**, vols. **264-268** (1998), pp. 941-944.

13. M. Badila, J. P. Chante, M.L. Locatelli, J. Millan, P. Godignon, **G. Brezeanu**, B. Tudor, A. Lebedev, "*Temperature Behaviour of the 6H-SiC pn Junctions*", **Diamond and Related Materials** vol. **8**, 1999, pp. 341-345.
14. **G. Brezeanu**, M. Badila, B. Tudor, J. Millan, P. Godignon, M.L. Locatelli, J. P. Chante, A. Lebedev, V. Banu, "*On the Interpretation of High Frequency Capacitance Data of 6H-SiC Boron Doped p-n-n⁺ Junction*", **Material Science and Engineering**, vols. **B61-62** (1999), pp. 429-432.
15. M. Badila, B. Tudor, **G. Brezeanu**, J. Millan, P. Godignon, M.L. Locatelli, J. P. Chante, A. Lebedev, V. Banu, "*Current-Voltage Characteristics of the Large Area 6H-SiC p-n-n⁺ Diodes*", **Material Science and Engineering**, vols. **B61-62** (1999), pp. 433-436.
16. **G. Brezeanu**, M. Badila, B. Tudor, P. Godignon, J. Millan, M.L. Locatelli, J.P. Chante, A. Lebedev and N.S. Savkina, "*Electrical Characteristics Modeling of Large Area Boron Compensated 6H-SiC pin Structures*", **Solid State Electronics**, vol. **44** (2000), pp. 571-579.
17. **M. Badila**, **G. Brezeanu**, J. Millan, P. Godignon, M.L. Locatelli, J.P. Chante, A. Lebedev, P. Lungu, G. Dinca, V. Banu, G. Banoiu, "*Lift-off technology for SiC UV detectors*", **Diamond and Related Materials**, vol. **9** (2000), pp 994-997.
18. **G. Brezeanu**, M. Badila, J. Millan, P. Godignon, M.L. Locatelli, J. P. Chante, A. Lebedev, V. Banu, "*6H-SiC Schottky Barrier Diodes with Nearly Ideal Breakdown Voltage*", **Material Science Forum**, vols. **338-342** (2000), pp. 1219-1222.
19. M. Badila, **G. Brezeanu**, J. P. Chante, Marie-Laure Locatelli, J. Millan, P. Godignon, A. Lebedev, P. Lungu, V. Banu, "*6H-SiC Diodes with Cellular Structure to Avoid Micropipes Effects*", **Material Science Forum**, vols. **338-342** (2000), pp. 1355-1358.
20. M. Badila, **G. Brezeanu**, G. Dilimot, J. Millan, P. Godignon, J.P. Chante, M.L. Locatelli, N.S. Savkina, A. Lebedev, "*An Improved Tehnology Of 6H-SiC Power Diodes*", **Microelectronic Journal**, vol. **31** (2000), pp. 955-962.
21. N. S. Savkina, A. A. Lebedev, D. V. Davydov, A. M. Strel'chuk, A. S. Tregubova, C. Raynaud, J. P. Chante, M. L. Locatelli, D. Planson, J. Millán, P. Godignon, F. J. Campos, N. Mestres, J. Pascual, G. Brezeanu and M. Badila. "*Low-doped 6H-SiC n-type epilayers grown by sublimation epitaxy.*" **Materials Science Engineering B**, 77, (2000), pp. 50-54.

22. A. Mihaila, F. Udrea, **G. Brezeanu**, G. Amaratunga, "*SiC Junction Control, an Alternative to MOS Control High Voltage Switching Devices*", **Materials Science Forum**, vols. **353-356** (2001) pp. 723-726.
23. **G. Brezeanu**, M. Badila, B. Tudor, J. Millan, P. Godignon, F. Udrea, , G. Amaratunga, A. Mihaila "Accurate Modelling and Parameter Extraction for 6H-SiC Schottky Barrier Diodes With Nearly Ideal Breakdown Voltage", **IEEE Transaction on Electron Devices**, vol. **48** (2001), pp. 2148-2153.
24. M. Badila, P. Godignon, J. Millan, S. Berberich , **G. Brezeanu**, "*The Electron Irradiation Effects on Silicon Gate Dioxide Used for Power MOS Devices*", **Microelectronics and Reliability** , vol.**41**(2001), pp1015-1018.
25. M. Badila, **G. Brezeanu**, J. Millan, P. Godignon, V. Banu, "*Silicon Carbide Schottky and Ohmic Contact Process Dependence*", **Diamond and Related Materials**, vol. **11**(2002), pp.1258-1262 .
26. **G. Brezeanu**, M. Badila, P. Godignon, J. Millan, F. Udrea, A. Mihaila, G. Amaratunga "An Effective High Voltage Termination for SiC Planar pn Junctions for Use in High Voltage Devices and UV Detectors", **Material Science Forum**, vols. **389 -393** (2002), pp. 1301-1304.
27. A. Mihaila, F. Udrea, R. Agar, **G. Brezeanu**, G. Amaratunga, "*Static and Dynamic Behaviour of SiC JFET/Si MOSFET Cascode Configuration for High Performance Power Switches*" **Material Science Forum**, vols. **389 -393** (2002), pp. 1239-1242.
28. A. Mihaila, F. Udrea, **G. Brezeanu**, G. Amaratunga, "*A Numerical Comparison between MOS Control and Junction Control High Voltage Devices in SiC Technology*" **Solid State Electronics**, vol. **47** (2003), pp. 607-615.
29. A. Mihaila, F. Udrea, P. Godignon, T. Trajkovic , **G. Brezeanu**, J. Rebollo , J. Millan, "*Novel Buried Field Rings Edge Termination for 4H-SiC High Voltage Devices*" **Material Science Forum**, vols. **433 -436** (2003), pp. 891-894.
30. **G. Brezeanu**, F. Udrea, G. Amaratunga, A. Mihaila, P. Godignon, J. Millan, M. Badila "*Improved understanding and Optimization of SiC nearly Solar Blind UV Photodiodes*" **Material Science Forum**, vols. **433 -436** (2003), pp. 965-968.
31. **G. Brezeanu**, P. Godignon, E. Dimitrova, C. Raynaud, D. Planson, A. Mihaila, F. Udrea, J. Millan, G. Amaratunga, C. Boianceanu, "*Towards the Fabrication and Measurement of High Sensitivity SiC-UV Detectors with Oxide Ramp Termination*", **Material Science Forum**, vols. **457 -460** (2004), pp.1495 -1498.

32. **G. Brezeanu**, C. Boianceanu, M. Brezeanu, A. Mihaila, F. Udrea, G. Amaratunga, "*Performance of SiC Cascode switches with Si MOS Gate*", **Material Science Forum**, vols. **483 -485** (2005), pp. 825-828.
33. M. Brezeanu, M. Badila, **G. Brezeanu**, F. Udrea, C. Boianceanu, G.A.J. Amaratunga, K. Zekentes, „ *Theoretical Study of an Effective Field Plate Termination for SiC Devices Based on High-k Dielectrics*" **Material Science Forum**, vols. **527-529** (2006), pp. 1087-1090.
34. M. Brezeanu, T. Butler, N. L. Rupesinghe, G. A. J. Amaratunga, S. J. Rashid, F. Udrea, M. Avram, **G. Brezeanu**, "*Ramp Oxide Termination Structure using High-k Dielectrics for High Voltage Diamond Schottky Diodes*", **Diamond and Related Materials**, vol. **16** (2007), pp. 1020 -1024.
35. **G. Brezeanu**, M. Brezeanu, F. Udrea G. Amaratunga, C. Boianceanu, M. Badila, K. Zekentes, A. Visoreanu, "*Comparison between Schottky Diodes with Oxide Ramp Termination on Silicon Carbide and Diamond*", **Material Science Forum**, vols. **556-557** (2007), pp. 865-868.
36. **G. Brezeanu** "*High Performance Power Diode on Silicon Carbide and Diamond*", publicata in **Proceedings of the Romanian Academy, series A: Mathematics, Physics , Technical Sceince, Information Science**, vol. 8 (2007), pp 249-262.
37. A. Sevcenco, **G. Brezeanu**, "*A Compact Analytical Modeling of the Electrical Characteristics of Submicron Channel MOSFETS*". **Romanian Journal of Information and Science Technology**, vol. 9(2008), pp.

INSPEC , COMPENDEX and others Journals

1. D. Dasc`lu, **G. Brezeanu** - "*High frequency detection properties of silicon n^+vn^+ devices*", **Revue Roumanie de Physique**, vol. **18**, 1973, pp. 677-68.
2. D. Dasc`lu, N. Marin, **G. Brezeanu** - " Bulk breakdown in mesa IMPATT structures, **Revue Roumanie de Physique**, vol. **19**, 1974, pp. 571 - 574.
3. M. Cr`ciun, **G. Brezeanu** - "*Determinarea unor parametri ai profilului de impurit`i din m`sur`tori capacitate - tensiune*", **EEA - Electrotehnic`**, vol. **25**, 1977, pp. 278-281.
4. D. Dasc`lu, P.A. Dan, **G. Brezeanu**, C. Dima - "*Efectul sinteriz`rii asupra caracteristicilor electrice ale diodelor Schottky Al/Si-n*", **EEA - Automatic` Ji Electronic`**, vol. **24**, 1980, pp. 5-8.
5. D. Dasc`lu, **G. Brezeanu**, C. B`lan - "*Caracteristicile curent-tensiune ale diodei Schottky cu strat de supraf`a*", **EEA - Automatic` Ji Electronic`**, vol. **25**, 1981, pp. 137-141.
6. D. Dasc`lu, **G. Brezeanu**, C. B`lan - "*Caracteristicile curent-tensiune ale diodei Schottky cu strat de supraf`a*", **Studii Ji cercet`ri [n fizic`**, vol. **34**, 1982, pp. 253-259.

7. D. Dasc`lu, **G. Brezeanu**, P.A. Dan, V. Banu - " *Caracteristicile electrice ale contactelor Ni-Si realizate prin depunere chimic`*", **Studii Ji cercet`ri de fizic`**, vol. **34**, 1982, pp. 123 - 128.

8. P.A. Dan, **G. Brezeanu**, D. Dasc`lu, G. Popovici, A. Veron, Al. Popa - " *Modific`ri ale structurii Ji propriet`ilor contactelor Al/Si prin tratament termic Ji func`ionare la curen`i Ji temperaturi mari*", **EEA - Automatic` Ji Electronic`**, vol. **26**, 1982, pp. 31-37.

9. D. Dasc`lu, P.A. Dan, V. Banu, **G. Brezeanu** - " *Bulk breakdown in heat-treated planar Al/n-Si Schottky diodes*", **Revue Roumanie de Physique**, vol. **27**, 1982, pp. 309-311.

10. P.A. Dan, G. Popovici, **G. Brezeanu**, Al. Popa - " *Structura de interfa`a contactelor de Ni/Si realizate prin depunere chimic`*", **EEA - Automatic` Ji Electronic`**, vol. **26**, 1982, pp. 155-159.

11. **G. Brezeanu**, D. Dasc`lu, P.A. Dan, M. Suciuc - " *Effect of sintering treatment upon the breakdown characteristics of planar Al/n-Si Schottky diodes*", **Buletinul I.P. Bucure`ti**, vol. **44**, 1982, pp. 67- 75.

12. P.A. Dan, **G. Brezeanu** - " *Siliciurile metalice [n microelectronic`*", **EEA - Automatic` Ji Electronic`**, vol. **28**, 1984, pp. 30 - 34.

13. **G. Brezeanu**, P.A. Dan, D. Dasc`lu, A. Veron, G. Popovici - " *Sisteme de metalizare pentru dispozitive de [nalt` frecven`*", **EEA - Automatic` Ji Electronic`**, vol. **28**, 1984, pp. 97-102.

14. **G. Brezeanu**, M. Petre - " *Dioda λ - caracteristici electrice Ji aplica`ii*", **EEA - Automatic` Ji Electronic`**, vol. **30**, 1986, pp. 57-60.

15. **G. Brezeanu**, V. Tr`istaru, P. Tr`istaru - " *SEMICONDUCTOR - program pentru determinarea parametrilor tipici ai contactelor metal-semiconductor*", **EEA - Automatic` Ji Electronic`**, vol. **30**, 1986, pp. 112-120.

16. P.A. Dan, **G. Brezeanu**, D. Dasc`lu - " *Investigarea microfizic` Ji electric` a metaliz`rilor la dispozitive semiconductoare Ji circuite integrate*", **EEA - Automatic` Ji Electronic`**, vol. **24**, 1987, pp. 51 - 58.

17. **G. Brezeanu** - " *Modelarea contactelor ohmice*", [n vol. **Microelectronica**, Ed. Academiei Rom@ne, 1987, pp. 152-161.

18. C. C`buz, **G. Brezeanu**, P.A. Dan - " *Modelarea contactelor metal - semiconductor cu straturi de suprafat` foarte sub`iri*", **EEA - Automatic` Ji Electronic`**, vol. **31**, 1987, pp. 138 - 141.

19. **G. Brezeanu**, P.A. Dan - " *Influen`a interfe`ei asupra caracteristicilor electrice la diodele Schottky realizate cu siliciuri*", **EEA - Automatic` Ji Electronic`**, vol. **33**, 1989, pp. 27 - 31.

20. **G. Brezeanu**, M. Badila, P. A. Dan, F. Mitu, E. Golu, " *Diode Schottky de putere cu profil rampa de oxid*", **EEA – Automatica si Electronica**, vol. **34**, 1990, pp. 19-23.

21. M. Badila, **G. Brezeanu**, F. Mitu, " *Determinarea sarcinii din oxid folosind dioda Schottky cu profil rampa de oxid ca vehicul test*", **EEA – Automatica si Electronica**, vol. **34**, 1990, pp. 134-136.

22. M. Badila, **G. Brezeanu**, F. Mitu, " *Diode Schottky de putere de curen`i reziduali foarte mici*", **EEA – Automatica si Electronica**, vol. **35**, 1991, pp. 45-47.

23. M. Badila, **G. Brezeanu**, F. Mitu, D. Steriu, D. Bucur, " *Sisteme de metalizare pentru diode Schottky de putere si curen`i inversi foarte mici*", **EEA-Automatica si Electronica**, vol. **36**, 1992, pp. 62-64.

24. **G. Brezeanu**, P. A. Dan, "*Modelarea contactelor Schottky intime cu strat de interfata*", in vol. **Noi Cercetari in Microelectronica**, Editura Academiei Romane, 1994, pp. 39-50.

25. **G. Brezeanu**, M. Badila, V. Traistaru, C. Orfescu, "*Sisteme de metalizare pentru circuite integrate*", in vol. **Noi Cercetari in Microelectronica**, Editura Academiei Romane, 1994, pp. 297-304.

26. **G. Brezeanu**, C. Georgian, C. Manzararu, "*Simularea bidimensionala a distributiilor de cimp si potential electric in diode Schottky cu profil rampa de oxid*", [n vol. **Noi Cercetari in Microelectronica**, Editura Academiei Romane, 1994, pp. 74-89.

27. **G. Brezeanu**, F. Draghici, C. Boianceanu, "*SiC photodetectors with high UV selectivity and sensitivity*" **Romanian Journal of Physics**, vol.48,nr.1-4,(2003), pp.171-84.

PAPERS IN CONFERENCE PROCEEDINGS

National conferences

1. P.A. Dan, **G. Brezeanu** - "*Siliciurile metalice [n microelectronic`*", [n vol. **Lucr`rile Conferin\ei Anuale de Semiconductoare - CAS**, edi\ia a 6-a, Timi\ul de Sus, 6 - 8 octombrie 1983, pp. 15 - 19.

2. **G. Brezeanu**, P.A. Dan, S. Filimon, D. Seremetea - "*Metalizarea la circuitele integrate Schottky*", [n vol. **Lucr`rile Conferin\ei Anuale de Semiconductoare - CAS**, edi\ia a 6-a, Timi\ul de Sus, 6 - 8 octombrie 1983, pp. 71 - 74.

3. P.A. Dan, N. Popescu, **G. Brezeanu**, F. Golu, E. Golu - "*Dioda Schottky mesa - o solu\ie radical` pentru [nl`turarea efectelor de margine*", [n vol. **Lucr`rile Conferin\ei Anuale de Semiconductoare - CAS**, edi\ia a 7-a, Timi\ul de Sus, 10 - 13 octombrie 1984, pp. 9 - 12.

4. **G. Brezeanu**, C. C`buz - "*Rezisten\ta specific` contactelor ohmice cu strat de suprafata*", [n vol. **Lucr`rile Conferin\ei Anuale de Semiconductoare - CAS**, edi\ia a 7-a, Timi\ul de Sus, 10 - 13 octombrie 1984, pp. 143 - 146.

5. **G. Brezeanu**, D. Seremetea, S. Filimon, V. Tr`istaru, H. Profeta - "*Analiza de curent continuu a circuitelor integrate Low Power Schottky (LPS)*", [n vol. **Lucr`rile Conferin\ei Anuale de Semiconductoare - CAS**, edi\ia a 7-a, Timi\ul de Sus, 10 - 13 octombrie 1984, pp. 187 - 190.

6. D. Dasc`lu, T. Tebeanu, **G. Brezeanu**, N. Marin - "*Realiz`ri [n domeniul diodelor generatoare de microunde*", **Conferin\ta Na\ional` de Electronic`, Telecomunica\ii, Automatic` Ji Calculatoare - CNETAC**, Bucure\ti, 15 - 17 noiembrie 1984, [n vol. **Lucr`rile CNETAC '84**, pp. 6 - 10.

7. **G. Brezeanu**, V. Tr`istaru, P. Tr`istaru, C. C`buz - "*SEMICONDUCTOR - program pentru determinarea parametrilor tipici ai contactelor metal-semiconductor*", [n vol. **Lucr`rile Conferin\ei Anuale de Semiconductoare - CAS**, edi\ia a 8-a, Poiana Bra\ov, 9 - 12 octombrie 1985, pp. 131 - 134.

8. P.A. Dan, **G. Brezeanu**, D. Dasc`lu - "*Investigarea microfizic` Ji electric` a metaliz`rilor la dispozitive semiconductoare Ji circuite integrate*", lucrare invitat` la **Conferin\ta Anual` de Semiconductoare - CAS**, edi\ia a 9-a, Sinaia, 1-4 octombrie 1986, pp. 91 - 100.

9. **G. Brezeanu**, E. Golu, P.A. Dan, G. Dumitrescu - "*Un nou dispozitiv de putere - dioda Schottky*", [n vol. **Lucr`rile Conferin\ei Anuale de Semiconductoare - CAS**, edi\ia a 9-a, Sinaia, 1-4 octombrie 1986, pp. 46 - 49.

10. M. B`dil`, **G. Brezeanu**, P. Tr`istaru, V. Tr`istaru - "*AlSi(1%) Ji Al - Mo - Sisteme de metalizare pentru circuite integrate*" , [n vol. **Lucr`rile Conferin`ei Anuale de Semiconductoare - CAS**, edi`ia a 9-a, Sinaia, 1-4 octombrie 1986, pp. 115 - 119.

11. **G. Brezeanu**, M. B`dil`, P.A. Dan, V. Tr`istaru, P. Tr`istaru, L. Boharu, S. Iovan - "*Vehicul test pentru contactul metal-semiconductor (CMS)*", [n vol. **Lucr`rile Conferin`ei Anuale de Semiconductoare - CAS**, edi`ia a 10-a, Sinaia, 7-10 octombrie 1987, pp. 45 - 48.

12. M. B`dil`, C. Orfescu, V. P`un, **G. Brezeanu**, V. Tr`istaru, P. Tr`istaru - "*Tratamente termice pentru sistemele de metalizare cu molibden*", [n vol. **Lucr`rile Conferin`ei Anuale de Semiconductoare - CAS**, edi`ia a 10-a, Sinaia, 7-10 octombrie 1987, pp. 119 - 122.

13. C. C`buz, **G. Brezeanu**, P.A. Dan - "*Modelarea contactelor metal-semiconductor cu straturi de suprafa` foarte sub`iri*", [n vol. **Lucr`rile Conferin`ei Anuale de Semiconductoare - CAS**, edi`ia a 10-a, Sinaia, 7-10 octombrie 1987, pp. 285 - 288.

14. **G. Brezeanu**, P.A. Dan - "*Influen`a interfe`ei asupra caracteristicilor electrice la diodele Schottky realizate cu siliciuri*", [n vol. **Lucr`rile Conferin`ei Anuale de Semiconductoare - CAS**, edi`ia a 11-a, Sinaia, 12 - 15 octombrie 1988, pp. 347 - 350.

15. **G. Brezeanu**, M. B`dil`, P.A. Dan, F. Mitu, E. Golu - "*Diode Schottky de putere cu profil ramp` de oxid (DSP - PRO)*", [n vol. **Lucr`rile Conferin`ei Anuale de Semiconductoare - CAS**, edi`ia a 12-a, Sinaia, 11 - 14 octombrie 1989, pp. 235 - 237.

16. **G. Brezeanu**, M. Badila, F. Mitu, "*Determinarea sarcinii din oxid folosind dioda Schottky cu profil rampa de oxid ca vehicul test*", in Proc. of the 13th **Annual Semiconductor Conference**, 10-13 octombrie 1990, Sinaia, Romania, pp. 145-148.

17. **G. Brezeanu**, M. Badila, F. Mitu, "*Diode Schottky de curenti reziduali foarte mici*", in Proc. of the 13th **Annual Semiconductor Conference**, 10-13 octombrie 1990, Sinaia, Romania, pp. 167-170.

18. **G. Brezeanu**, M. Badila, F. Mitu, D. Steriu, D. Bucur, "*Metalization systems for low reverse current high-power diodes*", in Proc. of the 14th **Annual Semiconductor Conference**, 8-11 octombrie 1991, Sinaia, Romania, pp. 19-22.

19. **G. Brezeanu**, F. Mitu, D. Steriu, "*A model for switching characteristics of the power Schottky diodes*", in Proc. of the 14th **Annual Semiconductor Conference**, 8-11 octombrie 1991, Sinaia, Romania, pp. 19-22.

ISI International Conferences

1. M. Badila , **Gh. Brezeanu**, "*A Study of Post Metallization Sintering Temperature Effect on Al/Ti/N Type Silicon Schottky Contact*" : **The Electrochemical Society Meeting**, San Francisco, California, USA May 1994.

2. M. Badila , **Gh. Brezeanu**, "*Field Plate Termination for Schottky Structure*", in Proc. of the 20th **Yugoslav Conference on Microelectronics, MIEL-95**, Sept. 1995, Nis, Serbia, 397-402.

3. F. Mitu, **G. Brezeanu**, G. Dilimot, L. Anghel, I. Enache, "*Method to Increase the Switching Speed of MOS Transistors by Dynamic Bias of the Bulk*", in Proc. of the 18th **International Semiconductor Conference**, 11-14 Oct., 1995, Sinaia, Romania, pp. 241-244.

4. J. Fernandez, P. Godignon, J. Rebollo, **G. Brezeanu**, J. Millan, "*High Frequency Electrical Characteristics of Thermally Grown SiO₂ Films on <0001> p-Type 6H-SiC*", in Proc. of the 18th **International Semiconductor Conference**, 11-14 Oct., 1995, Sinaia, Romania, pp. 187-190.

5. M. Badila, F. Mitu, S. Negru, **G. Brezeanu**, G. Dilimot, I. Enache, *"Integration Techniques for High Frequency Bipolar Circuits"*, in Proc. of the 19th **International Semiconductor Conference - CAS**, 9-12 Oct. 1996, Sinaia, Romania, pp. 287-290.

6. **G. Brezeanu**, J. Fernandez, J. Millan, J. Rebollo, M. Badila, G. Dilimot, P. Lungu, *"MEDICI Simulation of 6H-SiC Schottky Diode"*, in Proc. of the 19th **International Semiconductor Conference**, 9-12 Oct., 1996, Sinaia, Romania, pp. 531-534.

7. E. Morvan, J. Montserrat, P. Godignon, J. Fernandez, D. Flores, M.L. Locatelli, J. Millan, **G. Brezeanu**, *"Implantation Beam Angle Study for Al Implanted in 6H-SiC"* - in Proc. of the 19th **International Semiconductor Conference**, 9-12 Oct., 1996, Sinaia, Romania, pp. 393-396.

8. **G. Brezeanu**, F. Mitu, G. Dilimot, I. Enache, *"A Simple Technique to Increase the Switching Speed of the MOS Transistor"*, in Proc. of the 21st **Yugoslav Conference on Microelectronics - MIEL**, 14-17 Sept. 1997, Nis, Yugoslavia, pp. 743-746.

9. **G. Brezeanu**, J. Fernandez, J. Millan, M. Badila, G. Dilimot, *"MEDICI Simulation of 6H-SiC Oxide Ramp Profile Schottky Structure"*, in Proc. of the **International Conference of Silicon Carbide and Related Materials**, Sept. 1997, Stockholm, Suedia, pp. 467-468.

10. F. Mitu, **G. Brezeanu**, G. Dilimot, I. Enache, F. Draghici, *"Gating Circuit For GTO Thyristors"*, in Proc. of the 20th **International Semiconductor Conference**, 7-11 Oct. 1997, Sinaia, Romania, pp. 123-126.

11. M. Badila, **G. Brezeanu**, B. Tudor, G. Bica, P. Lungu, J. Millan, P. Godignon, M.L. Locatelli, J. P. Chante, *"Electrical Behavior of 6H-SiC pn Diodes"*, in Proc. of the 20th **International Semiconductor Conference**, 7-11 Oct., 1997, Sinaia, Romania, pp. 285-287.

12. **G. Brezeanu**, M. Badila, B. Tudor, J. Millan, P. Godignon, M.L. Locatelli, J. P. Chante, A. Lebedev, V. Banu, *"On the Interpretation of High Frequency Capacitance Data of 6H-SiC Boron Doped p-n-n⁺ Junction"*, in Proc. of the 2nd **European Conference on Silicon Carbide and Related Materials**, 2-4 Sept. 1998, Montpellier, France, pp. 241-242.

13. M. Badila, B. Tudor, **G. Brezeanu**, J. Millan, P. Godignon, M.L. Locatelli, J. P. Chante, A. Lebedev, V. Banu, *"Current-Voltage Characteristics of the Large Area 6H-SiC p-n-n⁺ Diodes"*, in Proc. of the 2nd **European Conference on Silicon Carbide and Related Materials**, 2-4 Sept. 1998, Montpellier, France, pp. 243-244.

14. M. Badila, C. Codreanu, **G. Brezeanu** - *"Low Cost Technology for High Frequency Bipolar Integrated Circuits"* in Proc. of the 2nd **International Conference on Advanced Semiconductor Devices and Microsystems- ASDAM '98**, 5-7 oct. -1998, Bratislava, Slovakia, pp.51-54.

15. S. Berberich, P. Godignon, J. Millan, M.L. Locatelli, **G. Brezeanu**, M. Badila, A. Lebedev, H. L. Hartnagel, *"Dependence of SiC/SiO₂ Interface Quality on Substrate and Dopant Type"*, in Proc. of the 21st **International Semiconductor Conference**, 7-11 Oct., 1998, Sinaia, Romania, pp. 323-326.

16. J. P. Chante, M.L. Locatelli, J. Millan, P. Godignon, N. S. Savkina, A.A. Glagovskii, A. Lebedev, M. Badila, **G. Brezeanu**, B. Tudor, M. Sorescu, G. Banoiu, G. Bica, V. Banu, *"Medium Power, Medium Voltage, Large Area 6H-SiC pn Junctions"*, in Proc. of the 21st **International Semiconductor Conference**, 7-11 Oct., 1998, Sinaia, Romania, pp. 307-310.

17. B. Tudor, **G. Brezeanu**, M. Badila, M.L. Locatelli, J. P. Chante, J. Millan, P. Godignon, A. Lebedev, N. S. Savkina, *"An Accurate Method of 6H-SiC pin Structures Parameter Extraction Using C-V Characteristics"*, in Proc. of the 21st **International Semiconductor Conference**, 7-11 Oct., 1998, Sinaia, Romania, pp. 315-318.

18. M. Badila, C. Codreanu, **G. Brezeanu**, B. Marinescu, A. M. Stoica, *"A Low Parasitic Elements and Self Aligned Contacts Technology for High Frequency Bipolar Integrated"*

Circuits", in Proc. of the 21st **International Semiconductor Conference**, 7-11 Oct., 1998, Sinaia, Romania, pp. 583-586.

19. M. Badila, J. P. Chante, M.L. Locatelli, J. Millan, P. Godignon, **G. Brezeanu**, B. Tudor, A. Lebedev, "*Temperature Behaviour of the 6H-SiC pn Junctions*", in Proc. of the 9th **Diamond, Diamond-Like Materials, Nitrides and Silicon Carbide Conference**, 13-18 Sept. 1998, Crete, Greece, pp. 15.104.

20. M. Badila, **G. Brezeanu**, J. Millan, P. Godignon, M.L. Locatelli, J.P. Chante, A. Lebedev, V. Banu, G. Banoiu, G. Dinca, P. Lungu, "*Lift-off Technology for SiC UV Detectors*", in Proc. of the 10th **Diamond, Diamond-Like Materials, Nitrides and Silicon Carbide Conference**, 12-17 Sept. 1999, Prague, Czech Republic, pp. - .

21. M. Badila, **G. Brezeanu**, J. P. Chante, Marie-Laure Locatelli, J. Millan, P. Godignon, P. Lungu, F. Mitu, F. Draghici, F. J. Campos, A. Lebedev, V. Banu, G. Banoiu, "*A Technique To Avoid Micropipe Effects on 6H-SiC Power Devices*", in Proc. of the 22nd **International Semiconductor Conference**, 5-9 Oct., 1999, Sinaia, Romania, pp. 187 - 190.

22. A. Mihaila, F. Udrea, R. Azar, J. Liang, G. Amaratunga, A. Rusu, **G. Brezeanu**, "*Theoretical and Numerical Investigation of SiC J-FET and MOS-FET at 6.5kV*", in Proc. of the 22nd **International Semiconductor Conference**, 5-9 Oct., 1999, Sinaia, Romania, pp. 191 - 194.

23. M. Badila, X. Jorda, J. Millan, Ph. Godignon, V. Banu, **G. Brezeanu**, M. Udrea - Spenea, L. Staicu, E. Iliescu, M. Bazu, C. Codreanu, "*A Preliminary Study on VDMOS and IGBT encapsulation reliability and Lifetime Killing*", in Proc. of the 22nd **International Semiconductor Conference**, 5-9 Oct., 1999, Sinaia, Romania, pp. 55 - 58.

24. **G. Brezeanu**, M. Badila, J. Millan, Ph. Godignon, Marie Laure Locatelli, J. P. Chante, A. Lebedev, G. Dilimot, I. Enache, G. Bica, V. Banu, "*A Nearly Ideal SiC Schottky Barrier Device Edge Termination*", in Proc. of the 22nd **International Semiconductor Conference**, 5-9 Oct., 1999, Sinaia, Romania, pp. 183 - 186.

25. **G. Brezeanu**, M. Badila, J. Millan, P. Godignon, M.L. Locatelli, J. P. Chante, A. Lebedev, V. Banu, "*6H-SiC Schottky Barrier Diodes with Nearly Ideal Breakdown Voltage*", in Proc. of the **International Conference of Silicon Carbide and Related Materials**, 10 - 15 Oct. 1999, Raleigh, North Carolina, USA, pp. - .

26. M. Badila, **G. Brezeanu**, J. P. Chante, Marie-Laure Locatelli, J. Millan, P. Godignon, A. Lebedev, P. Lungu, V. Banu, "*6H-SiC Diodes with Cellular Structure to Avoid Micropipes Effects*", in Proc. of the **International Conference of Silicon Carbide and Related Materials**, 10 - 15 Oct. 1999, Raleigh, North Carolina, USA, pp. - .

27. M. Badila, **G. Brezeanu**, G. Dilimot, J. Millan, P. Godignon, J.P. Chante, M.L. Locatelli, N.S. Savkina, A. Lebedev, "*An Improved Technology Of 6H-SiC Power Diodes*", in Proc. of the 22nd **Yugoslav Conference on Microelectronics - MIEL**, - May 2000, Nis, Yugoslavia, pp. 633-636.

28. A. Mihaila, F. Udrea, G. Amaratunga, **G. Brezeanu**, "*A comprehensive analysis of breakdown mechanisms in 4H-SiC MOSFET and JFET*", **IEEE International Semiconductor Conference**, October 2000, Sinaia, Romania, p.185-188.

29. **G. Brezeanu**, M. Badila, B. Tudor, J. Millan, P. Godignon, M. L. Locatelli, J.P. Chante, G. Amaratunga, F. Udrea, A. Mihaila "*Accurate modelling of Ni/6H-SiC Schottky barrier diodes (SBD) forward characteristics at high current densities*", **IEEE International Semiconductor Conference, October 2000**, Sinaia, Romania, p.193-196.

30. M. Badila, J. Millan, **G. Brezeanu**, P. Godignon, X. Jorda, E. Iliescu, V. Banu, "*Electron Irradiation Effects on Static <100> and <111> Power Controlled MOS Devices* ", in Proc. of the 23rd **International Semiconductor Conference**, 9-13 Oct., 2001, Sinaia, Romania, pp. 251 - 254.

31. A. Mihaila, F. Udrea, R. Azar, **G. Brezeanu**, "*Analysis of static and dynamic behaviour of SiC and Si devices connected in cascode configuration*", in Proc. of the **24nd International Semiconductor Conference**, 9-13 Oct., 2001, Sinaia, Romania, pp. 333 - 336.
32. M. Badila, **G. Brezeanu**, V. Banu, P. Godignon, J. Millan, X. Jorda, F. Draghici "*SiC power Schottky diodes industrial development*", in Proc. of the **24nd International Semiconductor Conference**, 9-13 Oct., 2001, Sinaia, Romania, pp. 337 - 340.
33. **G. Brezeanu**, M. Badila, P. Godignon, J. Millan, F. Udrea, A. Mihaila, G. Amaratunga, J. Rebollo, I. Enache "*UV detection properties of epitaxial 6H-SiC diodes with oxide ramp termination*", in Proc. of the **24nd International Semiconductor Conference**, 9-13 Oct., 2001, Sinaia, Romania, pp. 345 - 348.
34. O. Biserica, P. Godignon, **G. Brezeanu**, M. Badila, J. Rebollo, "*Design of a reliable planar edge termination for SiC power devices*", in Proc. of the **24nd International Semiconductor Conference**, 9-13 Oct., 2001, Sinaia, Romania, pp. 353 - 356.
35. F. Draghici, X. Jorda, **G. Brezeanu**, M. Badila, P. Godignon, J. Millan, J. Rebollo "*A system for measure reverse recovery time and stored charge at ultrafast power diodes*", in Proc. of the **24nd International Semiconductor Conference**, 9-13 Oct., 2001, Sinaia, Romania, pp.473 - 476.
36. **G. Brezeanu**, M. Badila, P. Godignon, J. Millan, F. Udrea, A. Mihaila, G. Amaratunga "*An Effective High Voltage Termination for SiC Planar pn Junctions for Use in High Voltage Devices and UV Detectors*", in Technical Digest of the **International Conference of Silicon Carbide and Related Materials**, 28 oct – 2 nov 2001, Tsukuba, Japan, pp.175-176.
37. A. Mihaila, F. Udrea, R. Agar, **G. Brezeanu** G. Amaratunga, "*Static and Dynamic Behaviour of SiC JFET/Si MOSFET Cascode Configuration for High Performance Power Switches*" in Technical Digest of the **International Conference of Silicon Carbide and Related Materials**, 28 oct – 2 nov 2001, Tsukuba, Japan, pp.458-459.
38. M. Badila, **G. Brezeanu**, J. Millan, P. Godignon, V. Banu, "*Silicon Carbide Schottky and Ohmic Contact Process Dependence*", in Proc. of the 11th, **Diamond-Like Materials, Nitrides and Silicon Carbide Conference**, 12-17 Sept. 2001, Budapest, Hungary, pp.15.5.02
39. **G. Brezeanu**, P. Godignon, J. Millan, F. Udrea, G. Amaratunga, M. Badila, A. Mihaila, F. Draghici, "*Comparison Of Schottky And Pn 6H-SiC Photodetectors With Excellent UV Sensitivity And Selectivity*" in Proceedings of **Diamond-Like Materials, Nitrides and Silicon Carbide Conference**, 12-17 Sept. 2002, Granada, Spain.
40. **G. Brezeanu**, F. Udrea, A. Mihaila, G. Amaratunga, J. Millan, P. Godignon, M. Badila, F. Draghici, C. Boianceanu, M. Brezeanu, "*Numerical and Analytical Study of 6H-SiC Detectors with High UV Performance*", in Proc. of the **25nd International Semiconductor Conference**, 8-12 Oct., 2002, Sinaia, Romania, pp. 185-188.
41. F. Draghici, F. Mitu, **G. Brezeanu**, C. Boianceanu, P. Agache, I. Enache, "*Electrical and Optical behaviour 6H-SiC Photodetectors*", in Proc. of the **25nd International Semiconductor Conference**, 8-12 Oct., 2002, Sinaia, Romania, pp.195 -198.
42. A. Mihaila, F. Udrea, P. Godignon, T. Trajkovic, **G. Brezeanu**, A. Rusu, J. Rebollo, J. Millan, "*Buried Field Rings – A Novel Edge Termination Method For 4H-SiC High Voltage Devices*" in Proc. of the **25nd International Semiconductor Conference**, 8-12 Oct., 2002, Sinaia, Romania, pp. 245 – 248.
43. G. Dilimot, **G. Brezeanu**, F. Mitu, I. Enache, "*Programable Low Voltage Bandgap Reference CMOS Compatible*", in Proc. of the **25nd International Semiconductor Conference**, 8-12 Oct., 2002, Sinaia, Romania, pp. 373 -376.
44. **G. Brezeanu**, F. Udrea, G. Amaratunga, A. Mihaila, P. Godignon, J. Millan, M. Badila "*Improved understanding and Optimization of SiC nearly Solar Blind UV Photodiodes*", in

45. A. Mihaila, F.Udrea, P. Godignon, T Trajkovic ,**G. Brezeanu**, J.Rebollo , J. Millan, “*Novel Buried Field Rings Edge Termination for 4H-SiC High Voltage Devices*”, in Proc. of the **4th European Conference on Silicon Carbide and Related Materials**, 1-5 Sept. 2002, Linköping, Sweden.

46. A. Mihaila, F.Udrea, P. Godignon, **G. Brezeanu**, R.K. Malhan, A. Rusu, J. Millan, G. Amaratunga, “*Towards Fully Integrated SiC Cascode Power Switches, for High Voltage Applications*”, Proc. of **International Symposium on Power Semiconductor Devices and ICs**, ISPD’03, 14-17, Apr 2003, Cambridge, U.K., pp.379-382.

47. **G. Brezeanu**, P Godignon, E. Dimitrova, C. Raynaud, D. Planson, A. Mihaila, F. Udrea, J. Millan, G. Amaratunga, C. Boianceanu, “*Towards the Fabrication and Measurement of High Sensitivity SiC-UV Detectors with Oxide Ramp Termination*”, in Proc. of **International Conference on Silicon Carbide and Related Materials**, 5-10 Oct, 2003, Lyon, France. p117.

48. P. Agache, C. Boianceanu, F. Draghici, G. Dilimot, **G. Brezeanu**, “*Data Acquisition and Processing for Semiconductor Devices*”, in Proc. of the **26nd International Semiconductor Conference**, 28 Sept.-02 Oct., 2003, Sinaia, Romania, pp.223 -226.

49. C. Boianceanu, M. Brezeanu, A. Palfi, A. Mihaila, **G. Brezeanu**, F.Udrea, G.Amaratunga, I. Enache, “*Transient Analysis of Si-MOS and SiC-J-FET Cascode Power Switches*”, in Proc. of the **26nd International Semiconductor Conference**, 28 Sept.-02 Oct., 2003, Sinaia, Romania, pp.227 -230.

50. M. Avram, C. Codreanu, **G. Brezeanu**, C. Voitincu, C. Iliescu, “*Contributions to the Development of MOS-FET SiC technologies*” in Proc. of the **26nd International Semiconductor Conference**, 28 Sept.-02 Oct., 2003, Sinaia, Romania, pp.271 -274.

51. A. Mihaila, F. Udrea, P. Godignon, **G. Brezeanu**, R. K. Malhan, A. Rusu, J. Millan, G. Amaratunga, „*Hybrid Si/SiC and fully integrated all SiC cascode configured power switches for high voltage applications*”, in Proc. of 10th **European Conference on Power Electronics and Applications**, Toulouse, France, 2-4 September 2003 (CD)

52. C. Boianceanu, **G. Brezeanu**, F. Udrea, G. Amaratunga, M. Brezeanu, A. Mihaila, F. Draghici, I. Enache, A. Visoreanu, “*SiC Device Parameters Effects on the Electrical Behaviour of mCascode Switch*” in Proc. of the **27nd International Semiconductor Conference**, 4-6 Oct., 2004, Sinaia, Romania, pp. 389-392.

53. M. Avram, **G. Brezeanu**, C. Iliescu, O. Neagoe, “*Contributions to Development of Power SiC Devices*” in Proc. of the **27nd International Semiconductor Conference**, 4-6 Oct., 2004, Sinaia, Romania, pp. 303-306.

54. **G. Brezeanu**, C. Boianceanu, M. Brezeanu, A. Mihaila, F. Udrea, G. Amaratunga, “*Performance of SiC Cascode switches with Si MOS Gate*” in Proc. of the **5th European Conference on Silicon Carbide and Related Materials**, 31 aug - 4 Sept. 2004, Bologna, Italy.

55. F. Mitu, C. Boianceanu, F. Drăghici, **G. Brezeanu**, G. Dilimot, „*Automatic Testing System for Power and High Temperature Devices*” in Workshop on ADVANCED POWER DEVICES, Romanian Academy, October 1st, 2004.

56. **G. Brezeanu**, “*A short history. An analytical aproach for SiC power devices*”, in Proc. of the **28nd International Semiconductor Conference**, 2-4 Oct., 2005, Sinaia, Romania, pp. 345-348

57. **G. Brezeanu**, M. Badila, M. Brezeanu, F. Udrea, C. Boianceanu, I. Enache, F. Draghici, A. Visoreanu, “*Breakdown performances improvements of SiC diodes using high-k dielectrics*”, in Proc. of the **28nd International Semiconductor Conference**, 2-4 Oct., 2005, Sinaia, Romania, pp. 357-360

58. M. Avram, **G. Brezeanu**, A. Avram, O. Neagoe, M. Brezeanu, C. Iliescu, C. Codreanu, C. Voitincu, “*Contributions To Development Of High Power SiC-IGBT*”, in Proc. of the **28nd International Semiconductor Conference**, 2-4 Oct., 2005, Sinaia, Romania, pp 365-368
59. Andrei A. Muller, D. Neculoiu, **G. Brezeanu**, “*Membrane Supported Spiral Inductors For Up To 10 Ghz Filter Applications*”, in Proc. of the **28nd International Semiconductor Conference**, 2-4 Oct., 2005, Sinaia, Romania, pp. 405-408
60. M. Brezeanu, M. Badila, **G. Brezeanu**, F. Udrea, C. Boianceanu, G.A.J. Amaratunga, K. Zekentes, „*An Effective Field Plate Termination for SiC Devices Based on High-k Dielectrics*” in Proc. of **International Conference on Silicon Carbide and Related Materials-ICSCRM 2005**, 18-23 Sept, 2005, Pittsburg, USA, pp.21.
61. M. Brezeanu, M. Avram, S. J. Rashid, G. A. J. Amaratunga, T. Butler, N. L. Rupesinghe, F. Udrea, A. Tajani, M. Dixon, D. J. Twitchen, A. Garraway, D. Chamund, P. Taylor, **G. Brezeanu**, “*Termination Structures for Diamond Schottky Barrier Diodes*”, in Proc of **the 18th International Symposium on Power Semiconductor Devices and ICs (ISPSD 2006)**, 4-8 June 2006, Napoli, Italy, pp. 73-76.
62. **G. Brezeanu**, A. Visoreanu, M. Brezeanu, F. Udrea, G.A.J.Amaratunga I. Enache, I. Rusu, F. Draghici, “*OFF- State performance of Ideal Schottky Barrier Diodes(SBD) on Diamond and Silicon Carbide*”, in Proc. of the **29nd International Semiconductor Conference**, 27-29 Sept. 2006, Sinaia, Romania, pp. 319-322.
63. M. Brezeanu, S.J. Rashid, G.A.J. Amaratunga, N. Rupesinghe, T. Butler, F. Udrea, **G. Brezeanu**, “ *On State Behaviour of Diamond M-i-P Structures* “, in Proc. of the **29th International Semiconductor Conference**, 27-29 Sept. 2006, Sinaia, Romania, pp. 311-314
64. A Mihaila, F. Udrea ,S.J. Rashid, P .Godignon,P. Brosselard, D. Tournier, J.Milan, G.A.J. Amaratunga, **G. Brezeanu**, “*Numerical and experimental Investigations on Bipolar Operation of 4H-SiC Normally –on Vertical JFETs* ”, in Proc. of the **29th International Semiconductor Conference**, 27-29 Sept. 2006, Sinaia, Romania, pp. 297-300.
65. **G. Brezeanu**, M. Brezeanu, F. Udrea G. Amaratunga, C. Boianceanu, M. Badila, K. Zekentes, A. Visoreanu, ”*Comparison between Schottky Diodes with Oxide Ramp Termination on Silicon Carbide and Diamond*” in Proc. of **6th European Conference on Silicon Carbide and Related Materials**, 3-7 Sept, 2006, Newcastle, UK, pp 24.
66. M. Brezeanu, T. Butler, N. L. Rupesinghe, G. A. J. Amaratunga, S. J. Rashid, F. Udrea, M. Avram, **G. Brezeanu**, “*Ramp Oxide Termination Structure using High-k Dielectrics for High Voltage Diamond Schottky Diodes*”, presented at **the 17th European Conference on Diamond, Diamond-Like Materials, Carbon Nanotubes, Nitrides & Silicon Carbide (Diamond 2006)**, 3-8 Sept. 2006, Estoril, Portugal.
67. A. Sevcenco, **G. Brezeanu**, M.Badila, F. Draghici, I. Rusu, A Visoreanu, “*Experimental Validation of a Simple Analytical Model for the Electrical Behavior of Nanoscale MOSFETs*”, in Proc. of the **30nd International Semiconductor Conference**, 15-17 Oct. 2007, Sinaia, Romania, pp. 551-554.
68. **G. Brezeanu**, M. Avram, M. Brezeanu, C. Boianceanu, F. Udrea, G.A.J.Amaratunga, “*Fabrication of Diamond Based Schottky Barrier Diodes with Oxide Ramp termination*”, in Proc. Of the **30th International Semiconductor Conference**, 15-17 Oct. 2007, Sinaia, Romania, pp. 411-414.
69. R. Ionescu, O. Mita, F. Vladoianu , **G. Brezeanu**, “*Non Inverting Differential Asymmetrical CMOS Comparator with Intrinsic Hysteresis and adjustable Asymmetry*”, in Proc. of the **30th International Semiconductor Conference**, 15-17 Oct. 2007, Sinaia, Romania, pp. 555-558.

70. **G. Brezeanu**, A. Sevcenco, “*Compact Model of Submicron Chanel MOS Transistor Transconductance for Analogy Circuit Simulation*”, in Proc. of the **8th International Symposium on Signal Circuits and Systems**, 12-13 July, 2007, Iasi, Romania, pp. 149-152.

71. **G. Brezeanu**, M. Brezeanu, C. Boianceanu, F. Udrea, G.A.J. Amaratunga, P. Godignon, „*Impact of High-k Dielectrics on Breakdown Performances of SiC and Diamond Schottky Diodes*” in Proc. of **International Conference on Silicon Carbide and Related Materials-ICSCRM 2007**, 14-19 Oct., 2007, Otsu, Japan, pp.?.

72. **G. Brezeanu**, A. Sevcenco, C. Boianceanu, I. Rusu, F. Draghici, „*A Complete Analytical Submicron Mos Transistor Drain Model For Analog Applications*” in Proc. of the **31th International Semiconductor Conference**, 13-15 Oct. 2008, Sinaia, Romania, pp. 309-312(2008).

73. L. Creosteanu, A. Danchiv, **G. Brezeanu**, „*Automotive High Side Power Switch Driver Circuit*” in Proc. of the **31th International Semiconductor Conference**, 13-15 Oct. 2008, Sinaia, Romania, pp. 415-418(2008).

74. **G. Brezeanu**, M. Badila, C. Boianceanu, F. Udrea, D. Puscasu, A. Ioncea, G.A.J. Amaratunga, M. Avram, “*Progress on the 4H-SiC Schottky Diodes with Oxide Ramp Termination for High Current/ High Voltage Applications*” in Proc. of **6th European Conference on Silicon Carbide and Related Materials**, 7-11 Sept, 2008, Barcelona, Spain, pp 56(2008).

INSPEC, COMPENDEX and other Conferences Proceedings

1. D. Dasc`lu, S. Negru, **G. Brezeanu**, P.A. Dan - “*Changes in Electrical Characteristics of Ti-Al Contacts on Silcon*”, in Proc. of the **12th Yugoslav Conference on Microelectronics - MIEL**, Ni], 7-9 May 1984, pp. 128 - 137.

2. **G. Brezeanu**, P.A. Dan, G. Popovci - “*Structure of Ni-Si Contacts for Power Devices*”, in Proc. of the **12th Yugoslav Conference on Microelectronics - MIEL**, Ni], 7-9 May 1984, pp. 253 - 261.

3. M. B`dil`, C. Orfescu, **G. Brezeanu** - “*Annealing Process for Molibdenum Metalizations Systems*”, in Proc. of the **17th Yugoslav Conference on Microelectronics - MIEL**, Ni], 10-12 May 1989, , pp. 235 - 237.

4. M. Badila, **G. Brezeanu**, P.A. Dan, F. Mitu, “*Power Schottky Diodes with Oxide Ramp Profiles (PSD-ORP)*”, in Proc. of the **18th Yugoslav Conference on Microelectronics - MIEL**, 10-12 May 1990, Nis, pp. 241-243.

5. **G. Brezeanu** and P.A. Dan, “*Practical Metal-Semiconductor Contacts: modelling non-uniformities, non-abruptness and self-doping (short review)*”, in Proc. of the **15th Annual Semiconductor Conference**, 6-10 Oct. 1992, Sinaia, Romania, pp. 61-66.

6. **G. Brezeanu**, M. Badila, C. Manzararu, C. Georgian, “*Electric Field and Potential Distribution in Schottky Diodes with Ramp Profile (SD-ORP) Silicide Metallized*”, in Proc. of the **15th Annual Semiconductor Conference**, 6-11 Oct. 1992, Sinaia, Romania, pp. 387-390.

7. F. Mitu, **G. Brezeanu**, “*Reverse Recovery Charge Measurement System*”, in Proc. of the **16th Annual Semiconductor Conference**, Sinaia, Romania, 8-11 Oct. 1993, pp. 169-172.

8. **G. Brezeanu**, M. Bădilă, B. Tudor, G. Dilimot, “*An Analytical Model for Reverse Blocking Characteristics of Double Epitaxial Power Schottky Diodes (DE-PSD)*”, in Proc. of the **16th International Semiconductor Conference**, 8-11 Oct. 1993, Sinaia, Romania, pp. 189-192.

9. M. Badila, **G. Brezeanu**, "*Double Epitaxial Layer Power Schottky Diodes with End in the Ramp Oxide Technique*", in Proc. of the 16th **Annual Semiconductor Conference**, 12-17 Oct. 1994, Sinaia, Romania, pp. 255 - 258.

10. M. Badila, **G. Brezeanu**, A. Rusu, B. Tudor, G. Dima, G. Antonoiu, "*Impurity Lateral Gradient Schottky Diodes Simulation and Experiment*", in Proc. of the 17th **Annual Semiconductor Conference**, 11-16 Oct. 1994, Sinaia, Romania, pp. 77 - 80.

11. F. Mitu, **G. Brezeanu**, G. Dilimot, "*High Speed Switching Circuit With Power MOSFETs*", in Proc. of the 17th **Annual Semiconductor Conference**, Sinaia, Romania, 8-11 Oct. 1994, pp. 415 - 418.

12. M. Avram, G. Brezeanu, D. Poenar, "*The comparison of modern SiC power devices* in Proc of the **IEEE International Conference on Industrial Technology** 1, pp. 504-509, Hammamet, Tunisia 2004

13. M. Avram, G. Brezeanu, D. P. Poenar, M. Simion, C. Voituca, "*Contributions to development of IGBT on SiC technologies* in Proc. of the **International Conference on Microelectronics, ICM**, pp. 368-371, Tunis, Tunisia, 2004.

14. **G. Brezeanu**, "*A High Efficiency Termination for SiC Planar Power Devices*", in Workshop on **ADVANCED POWER DEVICES**, Romanian Academy, October 1st, 2004.

15. V. Stih, **G. Brezeanu**, G. Cimpoca, "*Acelerometers – multifunction sensors fabricated by MEMS technologies*", in Proc. of the **6th International Balkan Workshop On Applied Physics**, 5-7 July, 2005, Constanta, Romania, p. 157

PATENTS

1. D. Dascalu, **G. Brezeanu**, N. Marin, V. Seinberg, "*Bonding method of the microwave diodes*", **Romanian Patent** 258/ 1977.

2. N. Marin, **G. Brezeanu**, "*Method to obtain the ohmic contact and accurate thinning of semiconductor wafer in integral technology heat sink*", **Romanian Patent** 165/ 1979.

3. M. Badila, **G. Brezeanu**, C. Cobianu, "*Etching method of the oxide under small angles ($< 5^\circ$)*", **Romanian Patent** 98639/ 1989.

4. M. Badila, **G. Brezeanu**, C. Cobianu, P.A. Dan, F. Mitu " Edge termination for high power and high breakdown voltage Schottky diodes", **Romanian Patent** 104 755/ 1991.

INVITED PAPERS

1. P.A. Dan, **G. Brezeanu**, D. Dascalu - "*Investigarea microfizica si electrica a metalizarilor la dispozitive semiconductoare si circuite integrate*", at **Conferinta Anuala de Semiconductoare - CAS**, editia a 9-a, Sinaia, 1-4 octombrie 1986.

2. **G. Brezeanu**, "*New Terminations for Planar Schottky Structures (PSS)*", at **NATO advanced study on Frontiers in Nanoscale Science of Micron/Submicron Devices**, Kiev Ukraine, Aug.1995.

3. **G. Brezeanu**, "*High Speed Power Schottky Diodes and MOS Transistors for Telecommunication Switching Circuits*", in Proc. of the **International Technical Conference on Circuits/Systems, Computers and Communications**, 15-17 July 1996, Seoul, Korea.

4. **G. Brezeanu**, "*6H-SiC High Voltage Diodes-Technology, Characterisation, Modelling*" at **University of Cambridge- Department of Electrical Engineering UK**, April, 2000.

5. **G. Brezeanu**, “ *Modelarea la curenti mari a diodelor Schottky de 1 kV din 6H-SiC* ”, at Academia Romana-sectia Stiinta si tehnologia informatiei, aprilie 2000.
6. **G. Brezeanu, J. Millan, P. Godignon, M. Badila**, “*SiC Unipolar Devices For High Voltage Applications*” at the workshop **Modelling and Electrical Characterisation of Advanced High – Voltage MOS Transistors**, Satellite of ESDERC 2001, Sept. 2001, Nurenberg, Germany.
7. **G. Brezeanu** , “*High Performance UV Photodectors on Silicon Carbide*” at **University of Cambridge- Department of Electrical Engineering UK**, May, 2002.
8. **G. Brezeanu**, F. Draghici, C. Boianceanu, “*SiC Photodetectors with High UV Selectivity and Sensitivity*”, at the 3rd **International Balkan Workshop On Applied Physics**, 26-28 June, 2002, Tirgoviste, Romania.
9. **G. Brezeanu**, M. Badila, F.Udrea, J. Millan, P. Godignon, A. Mihaila, G.Amaratunga, M. Brezeanu, C. Boianceanu, “*High Performance SiC Diodes Based on an Effiecient Plannar Termination*”, at the 26nd **IEEE International Semiconductor Conference**, 28 Sept.-02 Oct., 2003, Sinaia, Romania.
10. **G. Brezeanu**, „*Device Breakdown Enhancement Techniques Using an Oxide Ramp Termination*” at **University of Cambridge- Department of Electrical Engineering UK**, Martie, 2005
11. **G. Brezeanu**, „*SiC - Carbura De Siliciu - O Istorie De 100 Ani*” at **Conferinta anuala a Universitatii Valahia, Targoviste**, Iunie, 2005.
12. **G. Brezeanu**, C. Boianceanu, “*SiC Electron Devices: A Century of History*”, in Proc. of the 6th **International Balkan Workshop On Applied Physics**, 5-7 July, 2005, Constanta, Romania, p. 39.
13. **G. Brezeanu**, „*Basic Device Operation-A Fluid Dynamic Analogy* ” at **University of Cambridge- Department of Electrical Engineering UK**, Aprilie, 2006.
14. **G. Brezeanu**, “*Dispozitive de putere pe Carbura de Siliciu si Diamant*”, at **Academia Romana- Stiinta si tehnologia informatiei -section**, March 2007.
15. **G. Brezeanu**, ” *Microelectronics by Moore Law Despre Ingineri*”, at 10th **MATNANTECH Symposium**, July 2007.
16. **G. Brezeanu**, „*A Compact Model of Submicron MOS Transistor for Analogue Circuits Simulation*” at **University of Cambridge- Department of Electrical Engineering UK**, Aprilie, 2008.