



ANALYTICAL INSTRUMENTATION FACILITY

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Roberto Garcia Publications and Presentations

Journal Publications

- 1.) **'Secondary Ion Mass Spectrometry Backside Analysis of Barrier Layers for Copper Diffusion'**, C. Gu, A. Pivovarov, R. Garcia., F. Stevie, D. Griffis, J. Vac. Sci. Technol. B, 22(1) 350-354, Jan/Feb 2004.
- 2.) **'Etching characteristics of chromium thin films by an electron beam induced surface reaction'**, Wang JH; Griffis DP; Garcia R; Russell PE, SEMICONDUCTOR SCIENCE AND TECHNOLOGY 2003, Vol 18, Iss 4, pp. 199-205

Book Chapter Publications

- 1.) **'Sample Preparation of Commercial Multiple Quantum Well Laser Diodes for Structural, Compositional, and Electrical Analysis in a Scanning Transmission Electron Microscope'**, K.L. Bunker, R. Garcia, T.J. Kennedy, T.J. Stark, P.E. Russell, *Current Issues on Multidisciplinary Microscopy Research and Education*, Vol. 2, edited by A. Méndez-Vilas: (FORMATEX, Badajoz, Spain, In Press, 2004).

Conference Presentations

- 1.) **'Development of a STEM-EBIC/CL System'**
K.L. Bunker, R. Garcia, T.J. Kennedy, A.D. Batchelor, P.E. Russell
2003 MRS/ASM Regional Meeting, North Carolina Chapter
Outstanding Student Oral Presentation
November 14, 2003, Durham, NC
- 2.) **'STEM – Electron Beam Induced Current and Cathodoluminescence for Quantum Device Studies'**
K.L. Bunker, R. Garcia, T.J. Kennedy, A.D. Batchelor, P.E. Russell
Appalachian Regional Microscopy Society, Fall Meeting 2003
October 2-3, 2003
Boone, NC
- 3.) **'Development of a STEM-EBIC/CL System'**
K.L. Bunker, R. Garcia, P.E. Russell
Microscopy and Microanalysis 2003
Semiconductors and Magnetic Materials Platform Session
August 3-7, 2003, San Antonio, TX



Conference Poster Sessions

- 1.) **'Electrical Measurements of GaN-based Light Emitting Diodes with Electron Beam Induced Current'**
K.L. Bunker, J.C. Gonzalez, R. Garcia, A.D. Batchelor, T.J. Stark, P.E. Russell
2002 MRS Regional Meeting, North Carolina Section
November 15, 2002, Durham, NC
- 2.) **'Secondary Ion Mass Spectrometry Backside Analysis of Barrier Layers for Copper Diffusion'**
C. Gu, A. Pivovarov, R. Garcia, F. Stevie, D. Griffis, J. Moran, L. Kulig and J.F. Richards.
2002 MRS Regional Meeting, North Carolina Section, November 15, 2002, Durham, NC
- 3.) **'Sample Preparation of Commercial Multiple Quantum Well Laser Diodes for Structural, Compositional and Electrical Analysis in a Scanning Transmission Electron Microscope'**
T.J. Kennedy, K.L. Bunker, R. Garcia, P.E. Russell.
2002 MRS Regional Meeting, North Carolina Section, November 15, 2002, Durham, NC
- 4.) **'Electrical Measurements of GaN-based Light Emitting Diodes with Electron Beam Induced Current'**
K.L. Bunker, J.C. Gonzalez, R. Garcia, A.D. Batchelor, T.J. Stark, P.E. Russell
Appalachian Regional Microscopy Society, Fall Meeting 2002
Hitachi High Technologies Poster Award
October 3-4, 2002, Boone, North Carolina
- 5.) **'Electrical Measurements of GaN-based Heterostructures with Electron Beam Induced Current'**
K.L. Bunker, J.C. Gonzalez, R. Garcia, A.D. Batchelor, T.J. Stark, P.E. Russell
Microscopy and Microanalysis 2002
Physical Sciences Poster Finalist
August 4-8, 2002, Quebec City, Quebec, Canada