ADVANCE PROGRAM

1999 GaAs REL Workshop

SUNDAY OCTOBER 17, 1999, Preceding the GaAs IC SYMPOSIUM
Room: DeAnza III, Double Tree Hotel, Monterey, California

SPONSORED BY JEDEC COMMITTEE JC-14.7, EIA, and in cooperation with the IEEE.

Registration (Cost of Workshop is $95 by Oct.7th, $125 at the door, make checks payable to EIA) **7:30 AM**

Welcome, Opening Remarks, Introductions, Start (Anthony Immorlica, Workshop Chairman) **8:15 AM**

SESSION 1 - Getting Started (Sammy Kayali, Session Chair) . . . . 8:30-9:50 AM

1. **Channel Temperature Measurement of GaAs PHEMTs Using an Atomic Force Microscope.**
   W. Anderson, J. Mittereder, and J. Roussos, Naval Research Laboratory.
2. **Step-Stress Accelerated Testing in Ion-Implanted GaAs Self-Aligned Gate MESFETs.**
   F. Gao and P. Ersland, AMP – M/A-COM.
3. **Automated WLR Testing of HBT's.** E. Sabin, S. Dacus, and J. Scarpulla, TRW, Inc.
4. **Discussion on Preparing for Reliability Analyses.** Workshop Participants.

SESSION 2 - Bias Considerations. (Ken Russell, Chair) . . . . 10:10-11:30 AM

1. **RF Overdrive Experiments on 0.5 um Power pHEMTs.** V. Kaper, and P. Ersland, M/A COM.
2. **The Effect of Gate and Recess Scaling on the Gate-Drain Breakdown and Hot-Electron Reliability of AlGaAs/GaAs Power HFETs.** R. Menozzi, D. Dieci, G. Sozzi, T. Tomasi, and C. Lanzieri, University of Parma, Parma Italy, University of Modena and Reggio Emilia, Italy, Alenia Marconi Systems, Rome, Italy.
3. **Investigation on GaAs Power MESFETs Submitted to RF Life-test by LF Noise and Drain Current Transcient Analysis**. N. Saysset-Malbert, B. Lambert, C. Maneux, N. Labat, A. Touboul, Y. Danto, P. Huguet, P. Auxemery, F. Garat, Universite Bordeaux, United Monolithic Semiconductors, ESTEC-ESA.
4. **Discussion on Bias Considerations.** Workshop Participants.

SESSION 3 - Lifetest Results (Peter Ersland, Chair) . . . . 1-2:20 PM

1. **Reliability Testing of 0.1 um GaAs Psuedomophic HEMT Amplifiers.**
   D. Leung, Y. Chou, C. Wu, R. Kono, J. Scarpulla, R. Lai, M. Hoppe, and D. Streit, TRW, Inc.
2. **Hydrogen Sensitivity of GaAs HEMT Amplifiers: The Effect of Bias Mode.** D. Eng and J. Scarpulla, TRW.
3. **Preventing Degradation of GaAs Devices Using Getters.**
   R. Mohanty, Alpha Microelectronic Packaging Materials and Ken Gilleo, Cookson Electronics.
4. **Discussion on Lifetest Results.** Workshop Participants.

SESSION 4 - Addressing Use Issues (Wallace Anderson, Chair) . . . . . . 2:40-3:40 PM

1. **Reliability Performance of Components and ICs from a Production 1um GaAs HBT Process.**
   F. Yamada, A. Oki, D. Striet, B. Hikin, E. Kaneshiro, M, Lammert, L. Tran, T. Block, P. Grossman, J. Scarpulla, and A. Gutierrez-Aitken, TRW, Inc.
2. **Thermal Excursion Accelerating Factors.** W. Roesch, TriQuint Semiconductor, Inc.
3. **ESD Sensitivity Study of Various Diode Protection Circuits From a Production 1um GaAs HBT Process.**
   F. Yamada, A. Oki, E. Kaneshiro, M. Lammert, and A. Gutierrez-Aitken, TRW, Inc..
4. **Discussion on Use Issues.** Workshop Participants . . . . **4:00-5:00 PM**
   General Discussion - Late Papers (Wallace Anderson, Technical Program Chairman)

Late Registration, as available, will be October 17, at the door prior to the Workshop

Website: http://www.jedec.org/gaas/