

1997 GaAs REL WORKSHOP PROGRAM
OCTOBER 12,1997, MARRIOTT HOTEL, ANAHEIM CALIFORNIA

SESSION I - HBT RELIABILITY K.J. Russell, Chair

A Study of the DC and RF Degradation of Be-Doped AlGaAs/GaAs HBTs Under Constant Current Stress;
M. Borgarino, et al, University of Parma & CNRS-LAAS.

Mechanism for the Initial Current Gain Increase in Carbon-Doped Heterostructure Bipolar Transistors;
J. Chi and K. Lu, M/A-COM.

Bias Stress Test of Extremely High Doped Base HBTs; T. Henderson and D. Hill, Raytheon-TI Systems.

SESSION 2 – LIFETESTING W.J. Roesch, Chair

Accelerated lifetime testing and failure analysis of quartz based GaAs planar Schottky diodes;
R. Lin, et al, Jet Propulsion Laboratory.

DC and RF Lifetests on a GaAs MMIC Chip Set;
B. Pain and M. Delaney, Hughes Space and Communications Co.

S93031 Phase Modulator MMIC DC Lifetest;
J. Morrow, et al, Shason Microwave Corporation and Jet Propulsion Laboratory.

Comparison of Statistical Distributions for the Analysis of GaAs MMIC Life Test Data;
J. Mittereder, et al, Naval Research Laboratory & Virginia Polytechnic.

Performance and Reliability of InAlAs/InGaAs/InP HEMTs Technology for Millimeter Wave Applications;
Y. Chou, et al, TRW and UC Irvine.

SESSION III - HYDROGEN EFFECTS S.A. Kayali, Chair

Hydrogen Effects on GaAs Microwave Semiconductors;
D. Ragle & S. Kayali, Shason Microwave Corporation and Jet Propulsion Laboratory.

Modeling of Hydrogen Effects in Gallium Arsenide Field Effect Transistors;
R. Mutha, et al, University of Massachusetts, Jet Propulsion Laboratory, and Naval Research Laboratory.

Outgassing of Hydrogen in an Enclosed Cavity and Ramifications on the Reliability of GaAs Devices;
A. Reisinger, Sanders.

SESSION IV - GATE LAG & OTHER RELIABILITY TOPICS W. Anderson, Chair

A Comprehensive Gate-Lag Model for Digitally Modulated RF Power Amplifiers;
M. Shirocov, et al, Lehigh University.

Analysis of Surface and Substrate Deep-Trap Effects on Gate-Lag Phenomena in GaAs MESFETS;
K. Horio, et al, Shibaua Institute of Technology.

High Reliability GaAs MESFET for Suppressed Hot-Electron-Induced Degradation of High Efficiency Power Amplifiers; Y. Tkachenko, Alpha Industries.

Non-Destructive, High Resolution Channel Temperature Measurements of Compound Semiconductor Devices; Q. Kim and S. Kayali, Jet Propulsion Laboratory.

GaAs Company Q&R Benchmarking Results; B. Roesch, TriQuint Semiconductor.