

Advance Program

1995 GaAs REL Workshop

Sheraton San Diego Hotel & Marina, San Diego CA.

Note Location is Separate from GaAs IC Symposium: Bel Aire South (West Tower)

7:30-8:30 AM On-Site - Late Registration - As Available (Please Pre-Register)

8:30-9:00 AM Welcome & 10 Year Review of GaAs REL Workshops - Tony Immorlica, GRW Chairman

Session 1 - HBT Reliability

9:00-9:20 AM *Reliability Performance of Components and ICs from a Production GaAs HBT Process.*
F.M. Yamada, Oki, Streit, Umamoto, Tran, Najita, Kessler, Saito, & Rezek, TRW Inc.

9:20-9:40 AM *GaAs/AlGaAs Hetrojunction Bipolar Transistor Degradation Under RF Stress.*
Aditya Gupta, Dix, Ezis, Whisnant, Smith, & Lewis, Westinghouse Adv.Tech. Center.

9:40-10:00 AM *Instantaneous Burn-Out, Long Term Burn-Out, and Gradual Degradation of HBTs.*
H.C. Chung, MD. Wetzal, and J.C.M. Hwang, Lehigh University.

10:00-10:20 AM HBT Reliability Panel Discussion.

10:20-10:40 AM Break -----

Session 2 - Plastic Packaging Reliability

10:40-11:00 AM *Plastic Encapsulated Microcircuits in DoD, An Overview.*
Edward B. Hakim, Army Research Laboratory.

11:00-11:20 AM *Reliability of High Volume Plastic GaAs ICs.*
Walter E. Poole, Anadigics, Inc.

11:20-11:40 AM *GaAs IC Reliability in Plastic Packages.*
William J. Roesch and Anthony L. Rubalcava, TriQuint Semiconductor, Inc.

11:40-12:00 PM Plastic Packaging Reliability Panel Discussion.

12:00-1:20 PM Lunch -----

Session 3 - Failure Mechanisms

1:20-1:40 PM *Hydrogen Effects on GaAs, Status and Progress.*
Sammy Kayali, Jet Propulsion Laboratory, California Institute of Technology.

1:40-2:00 PM *Effects of Temperature and Concentration on Hydrogen Degradation of Pseudomorphic GaAs HEMTs.*
G. Kelly, M. Cobb, M. Welch, M. Weig, D. Weir, Raytheon Advanced Device Center.

2:00-2:20 PM *In-depth Understanding of Degradation Mechanisms in High-Power Pseudomorphic AlGaAs/InGaAs HEMTs.*
T.C. Chou and G.P. Li, University of California, Irvine.

2:20-2:40 PM *Electro-luminescence as an indicator of hot-electron-induced degradation of GaAs MESFETs.*
Y.A. Tkachenko, R.E. Leoni, C.J. Wei and J.C.M. Hwang, Lehigh University.

2:40-3:00 PM Break -----

Session 4 - Advanced Topics & Late News

3:20-3:40 PM *Power MESFET MMICs Demonstrate High Reliability In Fielded Systems.*
John Zingaro, G. Henry, P. Smith, M. Pingor, W. Jaron, Westinghouse Corp.

3:40-4:00 PM *Die Attach Formation and Delamination at the GaAs MMIC/Ceramic Substrate Interface.*
Nikolaos Strifas, Prasad Yalamanchili, & Aris Christou, CALCE, University of MD.

4:20-4:40 PM *Investigation of Rapid Ag Migration on Au Metal for Flip-Chip MMIC Technology.*
M. Chiang, C.P. Wen, W.D. Wong, Microelectronics Division GM Hughes Electronics.

4:40-4:50 PM *Failure Analyses Aided by a Bond Shear Tester.*
Walter A. Koziarz, Rome Laboratory.

5:00 PM - ? Discussion of Methods, Techniques, and Late News.