1986 IEEE Semiconductor Interface Specialists Conference
Program

Thursday, 11 December, 8:30am-12:00pm: Session 1 Hot carriers and high fields

1.1 C. Werner & W. Weber (Siemens AG), "Hot carrier trapping in short channel MOSFETs" (invited)

1.2 C. W. Teng, S. Aur & C-C. Wei (Texas Instruments), "Effects of silicidation on hot-carrier induced device degradation"

1.3 T. Hook (IBM) and T-P. Ma (Yale University), "Electron Trapping during high field tunnel injection"

1.4 Z. A. Weinberg & T. N. Nguyen (IBM), "The relation between positive charge and breakdown in metal-oxide-silicon structures"

1.5 P. Brassington & R. R. Razouk (Fairchild) and C-M. Hu (UC Berkeley), "Localized interface trap generation during plasma enhanced CVD nitride passivation"

Thursday, 11 December, 4:00pm-7:00pm: Session 2 Interface states and oxide traps

2.1 J. M. Sung & S. A. Lyon (Princeton University), "Kinectics of the conversion between trapped charge and interface states at low temperature"

2.2 P. J. McWhorter, R. A. Pastorek & P. S. Winokur (Sandia), "Donor/acceptor nature of radiation-induced interface traps"

2.3 H. S. Witham & P. M. Lenahan (Pennsylvania State University), "The nature of the deep hole trap in MOS oxides"

2.4 S. J. Wang & S. A. Lyon (Princeton University), "Relationship between location of trapped holes and interface state generation in radiation damaged MOS capacitors"

2.5 J.R. Schwank, P.S. Winokur, P.V. Dressendorfer & D.M. Fleetwood (Sandia), "Radiation-induced interface-traps in polysilicon gate MOS devices"

Friday, 12 December, 8:30am-12:00pm: Session 3 Non-silicon materials / Buried oxides

3.1 K. P. Pande (Allied Corporation), "InP-MISFETs: An alternative to Si-nMOS" (invited)

3.2 W. Kulisch & R. Kassing (University of Kassel), "Characterization of silicon dioxide-indium phosphide MIS-capacitors with reduced slow interface state density"

3.3 D. Chen (Texas Instruments), "Buried oxide silicon-on-insulator technology development" (invited)

3.4 A. Yoshino, K. Kasama & K. Hamano (NEC Corporation), "A study of oxygen-redistribution in "SIMOX" structure by XPS analysis"

Friday, 12 December, 2:00pm-5:00pm: Session 4 Advanced processes

4.1 E. Roscecher (CNET), "Electrical properties of Si/CoSi/Si metal base transistors" (invited)

4.2 Y. Nishioka, H. Shinriki & K. Mukai (Hitachi), "The influence of silicon dioxide dielectric characteristics at tantalum oxide/silicon interface"

4.3 M. Offenberg & P. Balk (Aachen Technical University), "Disturbance of stoichiometry in silicon dioxide films caused by ion implantation"

4.4 T. Hori, Y. Naito, H. Iwasaki & H. Esaki (Matsushita Electric), "Interface states and fixed charges in thin nitrided oxides prepared by rapid thermal annealing"

4.5 J. Batey, E. Tierney & T. N. Nguyen (IBM), "Characterization of MOS

capacitors incorporating ultra-thin silicon dioxide deposited at very low temperatures by plasma enhance CVD"

4.6 J. M. deLarios & C. R. Helms (Stanford University) and D. B. Kao & B. E. Deal (Fairchild), "Effect of silicon cleaning procedures on oxidation kinetics and surface chemistry"

Friday, 12 December, 6:30pm-8:00pm: Session 5 Poster presentations

5.1 P. Heremans, G. Groeseneken & H. E. Maes (IMEC), "Study of channel hot carrier degradation in nMOS and pMOS transistors using the charge pumping technique"

5.2 A. J. Lelis, T. R. Oldham & F. B. McLean (Harry Diamond Laboratory), "Spatial dependence of trapped holes determined from tunneling analysis and measured annealing"

5.3 H. E. Boesch & J. M. Benedetto (Harry Diamond Laboratory), "Measurement of x-ray induced charge generation and interfacial dose enhancement in MOS structures using a photocurrent technique"

5.4 W. E. Carlos (Naval Research Laboratories), "ESR Studies of buried oxide materials"

5.5 D. J. DiMaria, M. V. Fischetti, J. Batey, E. Tierney & J. Stasiak (IBM), "Direct Observation of ballistic electrons in silicon dioxide"

5.6 L. P. Trombetta (University of Houston), D. J. DiMaria (IBM) and G. J. Gerardi (Fort Monmouth), "EPR of the silicon-silcon dioxide interface following high current injection in CVD oxide MOS capacitors"

5.7 K. W. Teng, B. Y. Nguyen & P. J. Tobin (Motorola), "The interfacial properties of poly silicon/silicon dioxide/silicon nitride/silicon dioxide/silicon structures fabricated by different top-oxidation processes"

5.8 T. Tamagawa & R. C. Barker (Yale University), "Charge transport and charge trapping in plasma enhance CVD silicon-rich silicon dioxide injection layers"

5.9 B. G. Johnson & E. D. Castel (Fairchild),"Effects of rapid thermal processing on silicon bulk lifetime and the silicon - silicon dioxide interface"

5.10 K. Shenai (Stanford University), "Low-field channel-substrate (buffer) interfacial phenomena in GaAs MESFETs fabricated by molecular beam epitaxy"

5.11 S. S. Todorov & E. R. Fossum (Columbia University), "Progress in understanding low-energy ion beam oxidation of silicon"

5.12 M. L. Reed & J. D. Plummer (Stanford University), "Kinectic modeling of 100 and 111 interface trap annealing"

Saturday, 13 December, 8:00am-12:00pm: Session 6 Kinetics of oxidation

6.1 A. G. Revesz (Revesz Associates) and B. J. Mrstik & H. L. Hughes (Naval Research Laboratories), "Structural and strain-related effects during growth of silicon dioxide films on silicon"

6.2 J. R. Abelson & T. W. Sigmon (Stanford University), "Transmission channeling RBS analysis of buried interfaces: Low temperature diffusion and epitaxy in Pt/c-Si"

6.3 R. D. Frampton & E. A. Irene (University of North Carolina) and F. M. d'Heurle (IBM), "A study of the formation of silicon dioxide films at the silicide/silicon dioxide interface"

6.4 G. W. Rubloff, K. Hofmann, M. Liehr & D. R. Young (IBM), "High temperature reaction and defect chemistry at the silicon/silicon dioxide interface"

6.5 P. J. Grunthaner, F. J. Grunthaner & M. H. Hecht (JPL/Cal Tech) and N. M. Johnson (Xerox), "The influence of interstial chemistry on the valence band discontinuity for thermal silicon dioxide on silicon"