14:00 - 14:20 Lattice-mismatch and CMOS
Eugene A. FITZGERALD

14:20 - 14:40 Enhancement in Indium Incorporation for InGaN Grown on InN Intermediate Layer
H. HARTONO

14:40 - 15:00 Dilute nitride-antimonide as a potential material system for communication wavelength
photonic on low-cost GaAs platforms
S.F. YOON

15:00 - 15:20 Effect of oxygen on Ni-silicided FUSI metal gate
H.P. YU

15:20 - 15:40 Nanoanalytical characterization of breakdown spots in ultrathin gate dielectrics
K.L. PEY

15:40 - 16:00 Effects of applied loads, effective contact area and surface roughness on the dicing yield
of 3D Co bonded interconnects
H.L. LEONG

16:00 - 16:20 Tea Break

16:20 - 16:40 Colloid chemistry of self-organizing devices
Yet-Ming CHIANG

16:40 - 17:00 Monitoring Defect Formation in Colloidal Self Assembly using Photonic Bandgap
Variations
Y.K. KOH

17:00 - 17:20 Colloidal Self-Assembly for 3-dimensional Ordered Nanostructures
C.C. WONG

17:20 - 17:40 Fabrication of two-dimensional photonic crystals in AlGaInP/GaInP membranes by
inductively coupled plasma etching
A. CHEN

17:40 - 18:00 Synthesizing Binary Ionic Colloidal Crystals
V. SHARMA

18:00 End of 1st day Technical Parallel Session
Technical Parallel Session
Advanced Materials for Micro- and Nano-Systems (AMM&NS)
Day 2
Wednesday, 18 January 2006
Located at NUS Global Classroom, Computer Centre Level 3

9:00 - 9:20  Enabling nanoscale science and engineering via highly flexible, low cost, maskless lithography
Henry I. SMITH

9:20 - 9:40  TEM study on the evolution of Ge nanocrystals in Si oxide matrix as a function of Ge concentration and the Si reduction process
H.G. CHEW

9:40 - 10:00  Shape-controlled synthesis and chemically directed assembly of gold crystals
Bruno X. LIU

10:00 - 10:20  Templated self-assembly of catalysts and scaffolds for nanotubes and nanowires
Carl V. THOMPSON

10:20 - 10:40  Fabrication and I-V characterization of ZnO nanorod based metal-insulator-semiconductor junction
Le Hong QUANG

10:40 - 11:00  Self-assembly for magnetic and electronic device fabrication
Caroline A. ROSS

11:00 - 11:20  Tea Break

11:20 - 11:40  Nanomechanics experiments for engineered and biological materials
C.T. LIM and S. SURESH

11:40 - 12:00  Engineering carbon nanotubes from first-principles
N. MARZARI

12:00 - 12:20  Direct Control of the Conductance Channels in Carbon Nanotubes via Fluxional Handles
Y.S. LEE

12:20 - 12:40  Native point defects in yttria as a high-dielectric-constant gate oxide material: a first-principles study
J.X. ZHENG

12:40 - 13:00  Amorphous Al-transition metal alloys as anode material for lithium battery
C.Y. WANG

13:00 - 13:20  Characterization of LiNi_{0.5}Mn_{1.5}O_{4} thin film cathode prepared by pulsed laser deposition
H. XIA

13:20 - 13:40  High temperature deformation behavior of in-situ bulk metallic glass matrix composites
X.L. FU

13:40  End of Technical Parallel Session