

MONDAY, 21 July 2008

Yellow are invited talks

Light blue are plenaries

|       | Maple Leaf  |   | Aurora   |   | Prairie   |   |
|-------|---|---|--|---|---|---|
|       | Session M   |   | Session A  |   | Session P                                       |   |
| 8.30  | <b>Nano-photonics Photonic Crystals</b><br><br>Chair:<br>Al Meldrum | <b>Hvam, J.</b><br>Advances in Nanophotonics: Active Photonic Crystal Structures and Devices                        | <b>Terahertz Spectroscopy, Imaging and Photonics</b><br><br>Chair:<br>Matt Beard | <b>Jepsen, P.</b><br>Application of Reflection Terahertz Time-Domain Spectroscopy for Characterization of Bottled Liquids | <b>Organics I</b><br><br>Chair:<br>Jim McMullin | <b>Naito, H.</b><br>Optical Spectroscopic Studies of Polyfluorene and its Copolymers  |
| 9.00  |   | <b>Fox, M.</b><br>Ultrafast Non-Linear Switching in AlGaAs Photonic Crystals  |  | <b>Mittleman, D.</b><br>Subwavelength Terahertz Imaging   |   | <b>Fujita, K.</b> , In Situ Synthesized Polymer Films Embedded with Superfine Silver Nanoparticles Towards Applications in Random Lasers with Coherent Feedback |
| 9.15  |   | <b>Gharghi, M.</b> , Optical Properties of Silicon Nanopillars Formed by Maskless Reactive Ion Etching              |  | <b>Ayesheshim, A.</b> , Real-Time Terahertz Imaging Using Full-Field Electrooptic Sampling                                |   | <b>Chen, J.</b> , Enhanced Efficiency in Near-Infrared Inorganic/ Organic Hybrid Optical Upconverter with an Embedded Mirror                                    |
| 9.30  |   | <b>Huo, X.</b> , Two Dimensional Photonic Crystal Waveguide based Micro-Pressure Sensors                            |  | <b>Cooke, D.G.</b> , Terahertz photonics: Towards Active Components   |   | <b>Chan, H.P.</b> , Stress Induced Birefringence Analysis of Polymer Optical Waveguides   |
| 9.45  |   |   |  |   |   | <b>Thamyongkit, P.</b> , Investigation of Electronic Communication in Porphyrin Arrays for Light-Harvesting Application   |
| 10.00 | <b>Coffee</b>   |   |  |   |   |   |
| 10.30 |   | <b>Opening: Safa Kasap and Chris Haugen</b><br><br><b>TRLabs President: Roger Pederson</b>                          |  |   |   |   |
| 10.45 | Chair:<br>Frank Hegmann   | <b>PLENARY Gaeta, Alexander (Cornell)</b><br>Photonic Nanowires: Ideal Waveguides for Nonlinear Optics              |  |   |   |   |
| 11.45 |   | <b>PLENARY Yablonovitch, Eli (U of California Berkeley)</b><br>Nano-Photonics, From Photonic Crystals to Plasmonics |  |   |   |   |

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|-------|---|---|--|--|---|---|
| 12.45 | <b>Lunch</b>  |   |  |  |   |   |
| 2.00  | <b>Photonic Devices</b><br><br><b>Chair: Chris Haugen</b> | <b>Wada, O.</b><br>Quantum Dots and Semiconductor Nanostructures for Photonic Signal Processing Devices                             | <b>Thin Films</b><br><br><b>Chair: Stephen O'Leary</b>                       | <b>Sudbø, A.</b><br>Photonic Crystal Films   | <b>Organics II</b><br><br><b>Chair: Heinz von Seggern</b> | <b>Nunzi, J.-M.</b><br>Auger Fountain Electroluminescence in an Organic Diode   |
| 2.30  |   | <b>Yoshikawa, A.</b><br>Novel InN/GaN MQW visible-light-emitters consisting of one monolayer-thick InN wells inserted in GaN matrix |  | <b>Brett, M.J.</b><br>Fabrication and Optical Applications of Porous Chiral Thin Films   |   | <b>Petty, M.C.</b><br>Towards Organic Solid State Lighting  |
| 3.00  |   | <b>Boyd, E.</b> , The Fabrication and Optical Characterisation of Devices based on Stannic Oxide Nano-Cluster Films                 |  | <b>Hawkeye, M.M.</b> , Tailoring the Optical Properties of Thin Films by Controlling Nanostructure                                       |   | <b>Sugisaki, M.</b> , Spectrally-resolved Transient Grating Signal of $\beta$ -carotene   |
| 3.15  |   | <b>Tomioka, A.</b> , Near-Field Modulation of AlGaInP Laser Diode Emissions by an Aperture Probe of Near-Field Optical Microscope   |  | <b>Tanemura, S.</b> , Optical Properties of In <sub>2</sub> O <sub>3</sub> Thin Films prepared by Rf Magnetron Sputtering                |   | <b>Tykwinski, R.R.</b> , The Surprising Third Order Nonlinear Optical Properties of Polyynes  |
| 3.30  | <b>Coffee</b>   |   |  |  |   |   |
| 4.00  | <b>Si Photonics</b><br><br><b>Chair: Mike Bradley</b>     | <b>Koshida, N.</b><br>Photonic, Electronic, and Acoustic Device Applications of Nanocrystalline Silicon                             | <b>Optical Properties and Applications</b><br><br><b>Chair: Takeshi Aoki</b> | <b>Lenz, F.</b> , Sensitization Efficiencies in Er-doped SiO <sub>x</sub> Films Containing Amorphous or Crystalline Silicon Nanoclusters | <b>Organics III</b><br><br><b>Chair: Mike Petty</b>       | <b>von Seggern, H.</b><br>Advances in Organic Light Emitting Transistors  |
| 4.15  |   |   |  | <b>Mogilevsky, R.</b> , Luminescence Study of Grown Sapphire: from starting Material to Single Crystal                                   |   | <b>Mills, D.</b><br>Integrated Optics Devices for Biosensing Applications   |
| 4.30  |   | <b>Tsybeskov, L.</b><br>Light Emitting Silicon-Germanium Nanostructures for Optical Interconnects                                   |  | <b>Singh, J.</b> , Light emission from Dark Excitons in Light Emitting Devices   |   | <b>Djellali, N.</b> , Organic Micro-lasers: Design, Characterisation and Basic Properties   |
| 4.45  |   |   |  | <b>Melnik, R.</b> , Thermopiezoelectric Effects on Optoelectronic properties of CdTe/ZnTe Quantum Wires                                  |   |   |
| 5.00  |   | <b>Knights, A.P.</b> , Integrating Silicon Nano-crystal based Light Emitting Structures with Silicon Nitride Waveguides.            |  | <b>Hilling, B.</b> , Space-charge Waves in Hexagonal Silicon Carbide   |   | <b>Hashimoto, H.</b> , Third-Order Optical Nonlinearity of $\beta$ -Carotene Homologues Investigated by Third-Harmonic Generation Spectroscopy                    |
| 5.15  |   | <b>Lockwood, R.</b> , Luminescence Simulations of Ensembles of Silicon Nanocrystals   |  | <b>Ballato, J.</b><br>Novel Light Emitting Nanoparticles and Nanocomposites  |   | <b>Tomioka, A.</b> , Amplified Spontaneous Emissions from $\pi$ -Conjugated Conductive Polymer Film: Evanescent-Field Modulation by a 1-D Photonic Crystal Cavity |
| 5.30  |   | <b>Bianucci, P.</b> , Whispering Gallery Mode Photoluminescence in Silicon-Nanocrystal coated Cylindrical Microcavities             |  |  |   |   |
| 5.45  |   | <b>Kuai, S.</b> , Fast Color-Switching Si Light-Emitting-Diode  |  |  |   |   |
| 6.00  |   |   |  |  |   |   |
| 7.00  | <b>ICOOPMA Committee Meetings (TBA)</b>                   |   |  |  |   |   |

TUESDAY, 22 July 2008

|       | Maple Leaf  |   | Aurora  |  | Prairie                               |  |
|-------|---|---|---|--|---------------------------------------|--|
|       | Session M   |   | Session A   |  | Session P                             |  |
| 8.30  | Materials and Sensors<br><br>Chair: Raman Kashyap | <b>Fokine, M.</b><br>Manipulating Glass for Photonics   | Optoelectronic Materials<br><br>Chair: Tom Tiedje | <b>Fu, L. and Jagadish, C.</b><br>Quantum Dot Optoelectronic Devices                   | Photovoltaics<br><br>Chair: Jai Singh | <b>Beard, M.C.</b><br>Progress Towards Third Generation Photovoltaics  |
| 9.00  |   | <b>Limberger, H.</b><br>Light Induced Stresses in Silica Fibers   |   | <b>Baranovski, S.</b><br>Disorder Effects in Photoluminescence from Quantum Structures |                                       | <b>Dalal, V.</b><br>New Device Designs in Nanocrystalline Silicon Photovoltaic Devices                                   |
| 9.30  |   | <b>Sezerman, O.</b><br>Fiber Optic Distributed Strain and Temperature Sensors   |   | <b>Morkoc, H.</b><br>Optical Devices based on GaN                                      |                                       | <b>Mathew, X.</b> , Co-evaporated Cd <sub>1-x</sub> Mg <sub>x</sub> Te Thin Films for Applications in Tandem Solar Cells |
| 9.45  |   |   |   |  |                                       | <b>van der Ende, B.M.</b> , Near-Infrared Quantum Cutting for Photovoltaics  |
| 10.00 | <b>Coffee</b>                                     |   |   |  |                                       |  |
| 10.30 | Chair: Jeff Young                                 | <b>PLENARY Nozick, Arthur (NREL)</b><br>Third Generation Photovoltaics  |   |  |                                       |  |
| 11.30 |   | <b>PLENARY Ploog, Klaus (Paul Drude Institute)</b><br>Prospects of Conventional and Dilute III-Nitrides for Light Emitters and Solid-State Lighting |   |  |                                       |  |
| 12.30 | <b>Lunch</b>                                      |   |   |  |                                       |  |

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|------|--|--|---|--|--|---|
| 2.00 | <b>Photonic Crystals</b><br><br><b>Chair:</b><br><b>Mark Fox</b>                 | <b>Braun, P.</b><br>Adding Function to 3D Self-Organized Photonic Crystals through Materials Chemistry   | <b>Nanoparticles</b><br><br><b>Chair:</b><br><b>Frank Van Veggel</b>                                      | <b>Gomes, A.</b><br>Metallic Nanoparticles for Photonics and Bio Applications  | <b>Luminescence and Phosphors</b><br><br><b>Chair:</b><br><b>Sammynaiken</b> | <b>McKeever, S.W.S.</b><br>Applications of Optically Stimulated Radiation Dosimetry in Space Studies and in Medicine                                      |
| 2.30 |  | <b>Blaikie, R.J.</b><br>Near-field Imaging using Plasmonic-layer Reflection and Transmission   |   | <b>Baribeau, J.-M.</b><br>Advances in Self-Assembled SiGe Dots and Nanostructures  |  | <b>Blair, M.</b><br>Luminescence and Structural Properties of Nanophosphors   |
| 3.00 |  | <b>Hajiaboli, A.</b> , Optical Properties of Thick Metal Nanohole Arrays Fabricated by Electron Beam – and Nanosphere Lithography                  |   | <b>Desjardins, P.</b><br>Spatially-selective Tuning of the Electronic Properties of Self-assembled InAs/InP(001) Quantum Dots using Grown-in Defects and Ion Implantation Mediated Intermixing |  | <b>Mandowski, A.</b> , Cascade Detrapping Phenomenon in Thermoluminescence  |
| 3.15 |  | <b>Summers, M.</b> 2D-3D Photonic Crystal hetero-Structures by Glancing Angle Deposition   |   | <b>Koughia, C.</b> , Study of Radiation Energy Diffusion in Chalcogenide and Fluorochlorozirconate Glasses Doped With Erbium   |  |   |
| 3.30 | <b>Coffee</b>  |  |   |  |  |   |
| 4.00 | <b>Quantum Dots Nanostructures</b><br><br><b>Chair:</b><br><b>Kimberley Hall</b> | <b>Sargent, E.H.</b><br>Infrared Colloidal Quantum Dot Optoelectronic Devices  | <b>Materials, Sensors and Devices and Optical Applications</b><br><br><b>Chair:</b><br><b>Ray DeCorby</b> | <b>Martins, R.</b><br>DNA Detection using Amorphous Silicon Sensors with Gold Nanoparticles  | <b>Luminescence and Phosphors</b><br><br><b>Chair:</b><br><b>S. Tanabe</b>   | <b>Edgar, A.</b><br>Novel Scintillating Materials for Radiation Detection and Imaging   |
| 4.30 |  | <b>Amekura, H.</b> , Optical Properties of Oxide Nanoparticles in SiO <sub>2</sub> Fabricated by Ion Implantation and Thermal Oxidation            |   | <b>Kokenyesi, S.</b> , Optical and e-beam Recording in Se-enriched Chalcogenide Layers of As-Se system   |  | <b>Singh, J.</b> , Influence of Different Order Radiative and Quenching Processes on the Non proportional Light yield in Scintillators                    |
| 4.45 |  | <b>Singh, M.</b> Dipole-Dipole Interaction in Nanoscale Photonic Quantum Wells   |   | <b>Fainberg, B.</b> , Optical Control of Current in Quantum-Dot and Molecular Tunneling Nanojunctions  |  | <b>Sammynaiken, R.</b> , Time Resolved X-ray Excited Optical Luminescence (TRXEOL) investigation of Eu <sup>2+</sup> doped Zinc Oxide (ZnO) nanoparticles |
| 5.00 |  | <b>Kaur, G.</b> , Synthesis and Characterization of Se and Te Quantum Dots in the presence of Bovine Serum Albumin as Bioconjugate Materials       |   | <b>Hosseinkhannazer, H.</b> , Microfabrication and Characterization of Biochip Integrated Waveguides and Materials   |  | <b>Belev, G.</b> , A Study of X-Ray Induced Luminescence in Sm-Doped Fluorochlorozirconate Glass Ceramics   |
| 5.15 |  | <b>Jiang, H.</b> , 3-D FDTD and Plasmon Band Analysis of Slab-Waveguide-excited Surface Plasmon Resonance of Periodic Array of Gold Nanostructures |   | <b>Hulme, J.</b> , Thin Film Germanium Waveguide for Refractive Index Sensing  |  | <b>Williams, G.V.M.</b> , Radiation-Induced Optically Stimulated Luminescence in Mn <sup>2+</sup> and Eu <sup>2+</sup> Doped RbMgF <sub>3</sub>           |
| 5.30 |  | <b>Krause, K.</b> , Spatially Graded Photonic Nanostructures for Sensing Applications  |   | <b>Jin, P.</b> , Surface Plasmon Resonance of Metal Nanoparticles for Smart Window Application   |  | <b>Reddy, B. R.</b> , High Temperature Measurement using Rare-earth Luminescence  |
| 5.45 |  | <b>Leem, J.Y.</b> , Effects of GaAs/InGaAs Strained Layer Superlattices on Optical Properties of InAs Quantum Dots                                 |   | <b>Nemova, G.</b> , LPG Assisted High-Power Fibre Amplifier with Er <sup>3+</sup> Doped Cladding   |  | <b>von Seggern, H.</b> , A New Synthesis Route for the Highly Sensitive x-ray Storage Phosphor BaFBr:Eu <sup>2+</sup>                                     |
| 6.00 |  |  |   |  |  |   |
| 6.00 | <b>Coordinator: Al Meldrum (Chair) and Mike Bradley</b>                          |  | <b>POSTERS Wild Rose Room</b><br><b>Light supper and drinks during the Poster Session</b>                 |  |  |   |
| 8.45 | <b>End of Poster Session</b>   |  |   |  |  |   |

WEDNESDAY, 23 July 2008

|       | Maple Leaf                                   |  | Aurora   |   | Prairie   |  |
|-------|--|--|--|---|---|--|
|       | Session M                                    |  | Session A  |   | Session P or Wild Rose                          |  |
| 8.30  | Photonic Devices<br><br>Chair: Cyril Koughia | <b>Fujiwara, Y.</b><br>Injection-type 1.5 $\mu$ m Light-emitting Diodes with Er,O-codoped GaAs exhibiting Extremely Temperature-stable Emission Wavelength | Semi-conductors for Opto-electronics<br><br>Chair: Patrick McNally | <b>Linfield, E.H.</b><br>Recent Developments in Terahertz Quantum Cascade Lasers  | Glasses for Photonics<br><br>Chair: Animesh Jha | <b>Ohishi, Y.</b><br>Novel Photonics Glasses for Future Optical Signal Processing  |
| 9.00  |  | <b>Risch, M.</b> , Prospects for Band Gap Engineering by Plasma Ion Implantation   |  | <b>Scurtescu, C.</b> , InAs/GaAs Quantum Dot Device and Materials for Passive Mode-locking of NIR Lasers                                |   | <b>Heo, J.</b><br>Tuning the Photoluminescence of Quantum Dots in Glasses  |
| 9.15  |  | <b>Desautels, P.</b> , Electroluminescence in Plasma Ion Implanted Silicon   |  | <b>Alexandrov, D.</b> , Magnetic Properties of Epitaxial Layers of Mn <sub>x</sub> Ga <sub>1-x</sub> N Semiconductor Compound Alloy     |   | <b>Tanabe, S.</b><br>Transparent Active Glass Ceramics Containing Fluorite Solid-Solutions for Lanthanide Applications   |
| 9.30  |  | <b>Ganeev, R.</b> , High-Order Harmonic Generation in Nanoparticle-Contained Laser-Produced Plasmas  |  | <b>Talwar, D.N.</b> , Study of Microscopic Structures in Dilute III-N-As Materials by Local Mode Spectroscopy and Numerical Simulations |   |  |
| 9.45  |  | <b>Bianucci, P.</b> , Observation of Simultaneous Fast and Slow Light in a Microresonator  |  |   |   |  |
| 10.00 | <b>Coffee</b>                                |  |  |   |   |  |
| 10.30 | Nano-structures<br><br>Chair: N. Koshida     | <b>Bosnick, K.A.</b><br>Discrete Carbon Nanotube Diodes  | Semi-conductors for Opto-electronics<br><br>Chair: Hadis Morkoc    | <b>Willander, M.</b><br>Light Emission from Different Zinc Oxide Junctions and Nanostructures   | Glasses for Photonics<br><br>Chair: Andy Edgar  | <b>Righini, G.C.</b><br>Photonic Properties and Applications of Glass Micro- and Nanospheres   |
| 11.00 |  | <b>Milne, W.I.</b><br>Carbon Nanotubes for Photonic Devices  |  | <b>Hari, P.</b> , Surface Morphology Zinc Oxide Nanorods grown by Hydrothermal Deposition Technique                                     |   | <b>Jha, A.</b><br>Rare-earth Oxide Doped Tellurite Glass Near and Mid-IR Fibre Lasers  |
| 11.15 |  |  |  | <b>Miao, L.</b> , Random Laser Action in 3-D ZnO Nanostructure  |   |  |
| 11.30 |  | <b>Park, K.C.</b> , Spin Coated Transparent Electrodes from Dispersed Single-Walled Carbon Nanotubes Solution for Display and Optoelectronics              |  | <b>Lucas, F.O.</b> , Structural, Optical and Electrical Properties of Co-evaporated CuCl/ KCl films                                     |   | <b>Kokenyesi, S.</b> , Direct Surface Patterning of Homogeneous and Nanostructured Chalcogenide Layers   |
| 11.45 |  | <b>Park, K.C.</b> , Carbon Nanotube-emitter for X-ray Source   |  | <b>Boyko, T.</b> , Spectroscopic Analysis of Amorphous and Crystal Phases of Silicon Nitride  |   | <b>Aoki, T.</b> , Observation of $^4F_{3/2} \rightarrow ^4I_{15/2}$ Radiative Transition in Nd <sup>3+</sup> ions in GaLaS Glass using Frequency-Resolved PL Spectroscopy  |
| 12.00 |  | <b>Sun, Y.P.</b> , Photoluminescent Carbon Dots and Various Applications   |  | <b>Cowley, A.</b> , UV Emission on a Si Substrate: Optical and Structural Properties of Liquid Phase Epitaxy of $\gamma$ -CuCl on Si    |   | <b>Jiang, X.</b> , Melting Condition Effects on Photoluminescence of Bi <sub>2</sub> O <sub>3</sub> doped Germanate Glass  |
| 12.15 |  | <b>Tomasiunas, R.</b> , Copper Selenide Nanowires: a New Material for Light-induced Applications.  |  | <b>Shimakawa, K., Itoh, T.</b> , Optical Properties of Conductive ZnO Films Near Infrared Frequency                                     |   | <b>Nakanishi, T.</b> , Preparation And Luminescent Properties Of Eu <sup>2+</sup> -Activated Glass Ceramic Phosphor Precipitated With $\beta$ -Ca <sub>2</sub> SiO <sub>4</sub> and Ca <sub>3</sub> Si <sub>2</sub> O <sub>7</sub> |
| 12.30 | <b>Lunch</b>                                 |  |  |   |   |  |

12.30 – 2.15

ICG-TC20 Meeting at Ever Green Room

|             |  |  |  |  |  |  |
|-------------|--|--|--|--|--|--|
| 2.00        | Semi-conductors<br><br>Chair:<br>Magnus Willander  | <b>Tiedje, T.</b><br>Growth and Properties of Gallium Arsenide Bismide, a New Long Wavelength Semiconductor                          | Amorphous / Nano-crystalline Materials I<br><br>Chair:<br>Robert Collins | <b>Morigaki, K.</b><br>Recombination Processes and Light-Induced Defect Creation in Hydrogenated Amorphous Silicon                                   | Photoinduced Effects in Glasses<br><br>Chair:<br>Miloslav Frumar | <b>Wagner, T.</b><br>Properties and Structure of $Ag_x(As_{33}S(Se, Te)_{67})_{100-x}$ Bulk Glasses and Films  |
| 2.30        |  | <b>Nanishi, Y.</b><br>Potential, Achievements and Issues of InN and Related Alloys for Device Applications                           |  | <b>Nathan, A.</b><br>Nanocrystalline Silicon Thin Film Transistors In Optoelectronics Applications   |  | <b>Mitkova, M.</b><br>Photoinduced Diffusion in Tetrahedrally Coordinated Chalcogenide Glasses   |
| 3.00        |  | <b>Goldhahn, R.</b><br>Band Structure and Optical Properties of Nitride Semiconductors   |  | <b>Ogihara, C.</b> , Temperature Variation of Radiative Recombination Rate of Electron-hole Pairs Responsible for Defect Photoluminescence in a-Si:H |  | <b>Tanaka, K.</b><br>Visible Anisotropic Deformation of Chalcogenide Glass by Optical Force  |
| 3.15        |  |  |  | <b>Sazonov, A.</b> , Photo-TFT with nc-Si/a-Si:H Bilayer Channel for Large Area Digital Imaging  |  |  |
| 3.30        | <b>Coffee</b>                                      |  |  |  |  |  |
| 4.00        | Materials and Devices<br><br>Chair:<br>Ken Bosnick | <b>Vahala, K.</b><br>Cavity Optomechanics: The New Physics of Back-action Cooling and Amplification                                  | Amorphous / Nano-crystalline Materials II<br><br>Chair:<br>Arokia Nathan | <b>Collins, R.W.</b><br>Optical Analysis of Thin Films and Interfaces in Photovoltaic Devices  | Glasses<br><br>Chair:<br>Maria Mitkova                           | <b>Komatsu, T.</b><br>Laser Patterning of Nonlinear Optical Single Crystal Lines in Glasses  |
| 4.30        |  | <b>Bradley, M.P.</b> , Electroluminescent Device Production via Plasma Ion Implantation  |  | <b>Kamiya, T.</b><br>Electronic Structure, Doping, Defects, and Carrier Transport in Amorphous Oxide Semiconductors: Recent Progress                 |  | <b>Terakado, Nobuaki</b> , Ag-Photodoping in Nano-Structured $GeO_2-GeS_2$ Glasses   |
| 4.45        |  | <b>Mei, T.</b> , Polarized Edge-emitting Photoluminescence in Application of Quantum Well Intermixing Study for Photonic Integration |  | <b>Fortunato, E.</b> , Why Amorphous Oxide Semiconductors are so Attractive for Thin Film Transistors?   |  | <b>Teteris J.</b><br>Interaction between Light and Soft Materials  |
| 5.00        |  | <b>Kashyap, R.</b> , High Efficiency Solid State Laser Cooling in $Yb^{3+}$ :ZBLANP Fibre with Tilted Fibre Bragg Grating Structures |  | <b>O'Leary, S.K.</b> , The Amorphous-to-crystalline Phase Transition in Thin Silicon Films deposited on Silica under Ultra-high Vacuum               |  | <b>Kohoutek, T., Wagner, T.</b> , Planar Chalcogenide Quarter Wave Stack Filters for Near-Infrared   |
| 5.15 – 5.30 |  | <b>Gange, M.</b> , Novel long Fiber Bragg Grating Fabrication Technique based on Push-pull Phase-shifting Interferometry             |  |  |  | <b>Lucovsky, G.</b> , Controlled Chemical Phase Separation in Binary and Ternary Composites: A Pathway to Isotropic Optical and Electrical Behaviour for Device Applications |

## BANQUET (ROYAL GLENORA CLUB)

|               |   |   |
|---------------|---|---|
| 6.00 – 6.30   | <b>Buses from the Conference Centre to Royal Glenora Club</b> |   |
| 6.45          |   | <b>Cocktails</b>  |
| 7.15          |   | <b>DINNER (Alberta's finest roast beef. Canadian red. White wine is Sauvignon.)</b>   |
|               | A few words   | <b>Remarks: Safa Kasap</b>  |
| 7.20          | Poster prizes   | <b>Poster Prizes: Al Meldrum</b>  |
| 8.30          | Speaker   | <b>Dr. Philip Currie, The Dinosaur Detective / Chair, Frank Hegmann<br/>Title: A Centenary of dinosaur hunting in Alberta</b> |
| 9.30          | A few words   | <b>Closing: Safa Kasap</b>  |
| 10.00 – 10.30 | <b>Buses back to the Lister Centre</b>                        |   |

THURSDAY, 24 July 2008

|       | Maple Leaf   |   | Aurora  |  | Prairie   |   |
|-------|--|---|---|--|---|---|
|       | Session M  |   | Session A   |  | Session P                                       |   |
| 8.30  | Terahertz Imaging, Ultrafast Spintronics, and Meta-materials<br><br>Chair: Frank Hegmann | <b>Fukunaga, K.</b><br>Terahertz Spectroscopy and Imaging Techniques for Non-invasive Art Analysis                            | Nano-photonics, Quantum Dots and Related Topics<br><br>Chair: Thomas Krauss | <b>Fan, S.</b><br>Dynamic and Non-Reciprocal Effects in Nanophotonics  | Chalcogenide Glasses<br><br>Chair: Tomas Wagner | <b>Lucovsky, G.</b><br>Microscopic Description of Strain-Reducing Chemical Bonding Self-Organizations in Non-Crystalline Alloys: <i>Applications in Electronic and Optoelectronic Devices</i> |
| 9.00  |  | <b>Hall, K.C.</b><br>Femtosecond Optical Studies of Spintronic Materials  |   | <b>Singh, M.R.</b><br>All-Photonic Switching in Nanophotonic Quantum Wells   |   | <b>Frumar, M.</b><br>Binary and Ternary Tellurides for Optical and Electrical Data Storage  |
| 9.30  |  | <b>Padilla, W.J.</b><br>Narrow-Band Perfect Metamaterial Based Absorber for Terahertz Imaging                                 |   | <b>Liu, J.</b> , High-power C-band Multi-wavelength Quantum-dot Laser  |   | <b>Bobela, D.C.</b> , Insight into the Local Bonding Structure of Antimony and Tellurium in some Amorphous Phase $Ge_2Sb_2Te_x$ Compounds   |
| 9.45  |  |   |   | <b>Iida, T.</b> , Unconventional Control of Excited States of a Dimer Molecule by a Localized Light Field between Metal Nanostructures |   | <b>Franta, D.</b> , Modeling of Dielectric Response of $Ge_xSb_yTe_z$ (GST) Materials   |
| 10.00 | <b>Coffee</b>  |   |   |  |   |   |
| 10.30 | Chair: Koichi Shimakawa  | <b>PLENARY Arakawa, Y. (University of Tokyo)</b><br>Advances In Quantum Dots for Nanophotonic and Quantum Information Devices |   |  |   |   |
| 11.30 |  | <b>PLENARY Tanioka, K. (NHK)</b><br>Ultra-Sensitive Imaging with HARP: From Concept to Realization at NHK                     |   |  |   |   |
| 12.30 | <b>Lunch</b>   |   |   |  |   |   |

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|------|---|---|--|---|--|---|
| 2.00 | <b>Photonic Crystals</b><br><br><b>Chair:</b><br><b>Jorn Hvam</b> | <b>Knight, J.C.</b><br>Nonlinear Optics with Tiny Bits of Glass:<br>Photonic Crystal Fibres       | <b>Materials, Sensors and Devices</b><br><br><b>Chair:</b><br><b>Sergei Baranovski</b> | <b>Marsland, J.S.</b><br>Impact Ionization in Semiconductors: Recent Progress and Non-Local Effects                         | <b>Nonlinear and Related Phenomena</b><br><br><b>Chair:</b><br><b>Keiji Tanaka</b> | <b>Eggleton, B.J.</b><br>Ultrafast All-optical Chalcogenide Glass Photonic Circuits   |
| 2.30 |   | <b>Krauss, T.F.</b><br>Slow Light in Silicon Photonic Crystal Waveguides                          |  | <b>Ohkawa, Y.</b> , Temperature Dependence of Carriers in High Sensitivity HARP Photoconductive Film                        |  | <b>Kamada, K.</b><br>Recent Advancements in Molecular Design of Molecular Two-Photon Absorbers  |
| 2.45 |   |   |  | <b>Reznik, A.</b> , Avalanche Multiplication in Amorphous Selenium Solid-State Photodetector                                |  |   |
| 3.00 |   | <b>Gauthier, R.C.</b> , Photonic Quasi-Crystals   |  | <b>Sultana, A.</b> , The Effect of K-edge Reabsorption of Selenium on the Performance of a Protein Crystallography Detector |  | <b>Saravanamuttu, K.</b> , Nonlinear Light Propagation In Photoresponsive Systems: From Self-Trapped Beams To 3-D Lattices Of White Light |
| 3.15 |   | <b>Singh, M.R.</b> , Time Evolution of Absorption Process in Nonlinear Metallic Photonic Crystals |  | <b>Safavian, N.</b> , Noise Analysis of a Novel Hybrid Active-Passive Pixel for Medical X-ray Imaging                       |  | <b>Slepkov, A.D.</b> , Formation of a Spatio-temporal Shell Pulse by using Non-degenerate Two-photon Absorption                           |
| 3.30 | <b>C o f f e e</b>  |   |  |   |  |   |
| 4.00 | <b>Closing Session</b>  | <b>Kuzyk, M.G. (Special Invited)</b><br>Transmitting Mechanical Forces on a Beam of Light         |  |   |  |   |
| 4.30 | <b>Chair:</b><br><b>Safa Kasap</b>                                | <b>PLENARY</b><br><b>Young, J. (UBC)</b><br>Nanostructures to Miniaturize Nonlinear Optics        |  |   |  |   |
| 5.30 | <b>Closing</b>  | <b>Closing: Safa Kasap, Jai Singh and Sandor Kokenyesi</b>  |  |   |  |   |