2nd RD50 Workshop - Program - 18-10 May 2003

Sunday, 18.5.2003 - Afternoon - Building 40 - room: S2-B01		
13:00	**Welcome** *Mara Bruzzi (Spokesperson)*	
Session I : Defect and Material Characterization *Convener: Bengt Svensson* *Chairperson:*		
13:10	I.1 - **Radiation damage in p-type boron doped Si** James Adey[1], R. Jones[1], P. R. Briddon[2] [1], University of Exeter, U.K. [2], University of Newcastle, U.K.	Abstract
13:30	I.2 - **Evidence for identification of divacancy oxygen center in high purity oxygenated Si** Giovanni Alfieri(1, E.V.Monakhov(1, B.S.Avset(2, B.G.Svensson(1 (1 Department of Physics, Physical Electronics, University of Oslo,PO Box 1048 Blindern, N-0316 Oslo,Norway (2 SINTEF,Electronics and Cybernetics,PO Box 124 Blindern,N-0314 Oslo,Norway	Abstract
13:50	I.3 - **Divacancy Oxygen model - fake or fact?** Ioana Pintilie(1,2), E. Fretwurst(2), G. Lindstroem(2), J. Stahl(2), Z. Li(3) (1) NIMP, Bucharest, Romania (2) Hamburg University, Germany (3) BNL, USA	Abstract
14:10	I.4 - **Lorentz shift in Si detectors at 77K - A detailed discussion** Alexander Dierlamm, W. de Boer, J. Bol, F. Hauler, L. Jungermann Inst. für Exp. Kernphysik, Univ. Karlsruhe	Abstract
14:30	I.5 - **Silicon carbide: electronic levels associated to irradiation** Anna Cavallini*, A. Castaldini*, F. Nava# *Department of Physics University of Bologna #Department of Physics University of Modena	Abstract
14:50	I.6 - **Characterisation of defect centres in SI InP:Fe as a starting material for nuclear radiation detectors** Pawel Kaminski, Roman Kozlowski and Michal Pawlowski Institute of Electronic Materials Technology (ITME), Wolczynska 133, 01-919 Warszawa, Poland	Abstract
15:10	I.7 - **RD50 - DLTS-calibration study** Bengt Svensson University of Oslo, Department of Physics	Abstract
15:30 Coffee Break (30 min)		
16:00 (30min)	**Discussion Session:** ***Defect and Material Characterization*** *Chair/Convener: Bengt Svensson*	

Session II: Pad Detector Characterization *Chairperson: Michael Moll*		
16:30	II.1 - **Simulation of charge trapping in irradiated silicon** Tommaso Lari, C. Troncon INFN Milano	Abstract
16:50	II.2 - **Reverse annealing studies on standard diodes irradiated with 34 MeV proton beam.** D. Creanza, M. Depalma, N.Manna, Valeria Radicci Bari University and INFN of Bari	Abstract
17:10	II.3 - **Physics of detectors based on electric field manipulation (selected results of CERN-INTAS-RD39 project)** Vladimir Eremin, on behalf of RD39 collaboration and INTAS-RD39 group Ioffe Physico-Technical Institute, St.Petersburg, Russia	Abstract
17:30	II.4 - **Measurement of the Trapping Time Constants in Silicon with the Transient Current Technique** Olaf Krasel, Claus Gößling, Jonas Klaiber-Lodewigs, Reiner Klingenberg, Martin Maß, Silke Rajek, Renate Wunstorf Lehrstuhl für Experimentelle Physik IV Universität Dortmund	Abstract
17:50	II.5 - **RD50 common pad detector mask design project -current status** Jaakko Harkonen et al.	Abstract
18:10 (30min)	**Discussion Session:** ***Pad Detector Characterization*** *Chair:*	

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Monday, 19.5.2003 - Morning - Building 40 - room: S2-B01		
Session III: Defect Engineering *Convener: Eckhart Fretwurst* *Chairperson:*		
8:50	III.1 - **Improved Radiation Tolerance of Silicon Detectors for HEP Applications; Results from the CiS-HH Project** G. Lindstroem (a), D. Contarato(a), Eckhart Fretwurst(a), F. Hoenniger(a), G. Kramberger(b), I. Pintilie(a,c), R. Roeder (d), A. Schramm(a), J. Stahl (a) (a): Institute for Experimental Physics, Univ. of Hamburg (b): DESY, Hamburg, (c): National Institute for Material Physics, Bucharest, (d) CiS Institute for Microsensors, Erfurt	Abstract
9:10	III.2 - **Radiation Hardness of High resistivity CZ Si Detectors after Gamma, Neutron and Proton Radiations** Zheng Li[1], J. Harkonen 2, W. Chen1, J. Kierstead1, E.Tuominen2, E. Tuovinen2, E. Verbitskaya3, and V. Eremin3 1 Brookhaven National Laboratory, Upton, NY 11973-5000, USA 2 Helsinki Institute of Physics, P.O. Box 64, University of Helsinki, Helsinki, 00014, Finland 3 Ioffe Physico-Technical Institute, Polytechnicheskaya Str. 26, St. Pertersburg, 194021, Russia	Abstract
9:30	III.3 - **Radiation hardness of Czochralski silicon studied by low energy protons** Esa Tuovinen[1], J.Harkonen1, K.Lassila-Perini1, P.Luukka1, J.Nysten1, E.Tuominen1, P.Laitinen2, I.Riihimaki2, A.Virtanen2 1 Helsinki Institute of Physics 2 Jyvaskyla University Accelerator Laboratory	Abstract
9:50	III.4 - **TSC analysis of gamma-irradiated standard and DOFZ Si diodes in a wide temperature range** Mara Bruzzi, D. Menichelli, S. Miglio, M. Scaringella I.N.F.N. Firenze - Dipartimento di Energetica, Via S. Marta 3, 50139 Firenze, Italy	Abstract
***10:10** Coffee Break (30 min)*		
10:40	III.5 - **Lithium ion irradiation of silicon diodes** Andrea Candelori (1), D. Bisello (1), M. Boscardin (2), D. Contarato (3), G. F. Dalla Betta (4), E. Fretwurst (3), A. Kaminski (1), G. Lindström (3), A. Litovchenko (1), M. Lozano (5), M. Moll (6), R. Rando (1), M. Ullán (5), A. Schramm (3), and J. Wyss (7) (1) Dipartimento di Fisica and INFN Sezione di Padova, Italy; (2) ITC-IRST, Divisione Microsistemi, Trento, Italy; (3) Universität Hamburg, Institut für Experimentalphysik, Germany; (4) Università di Trento, Dipartimento di Informatica e Telecomunicazioni, Italy; (5) Centro Nacional de Microelectrónica, Universidad Autónoma de Barcelona, Spain; (6) CERN, Genève, Switzerland; (7) Facoltà di Ingegneria, Università di Cassino, Italy.	Abstract
11:00	III.6 - **Radiation hard of pre-irradiated Si for detectors** Petro Lytovchenko	Abstract
11:20	III.7 - **Simulation of Dimer formation** Veronique Boisvert and Michael Moll CERN	Abstract
11:40 (30min)	**Discussion Session: *Defect Engineering*** *Chair/Convener: Eckhart Fretwurst*	
12:10 - 13:30 Lunch		

Session IV: Full Detector Systems *Convener: Gianluigi Casse* *Chairperson:*		
13:30	IV.1 - **Full-size Czochralski silicon detectors irradiated with 10 MeV protons** Panja Luukka[1], S. Czellar1, A. Heikkinen1, J. Härkönen1, V. Karimäki1, T.Lampen1, J. Nysten1, E. Tuominen1, J. Tuominiemi1, E. Tuovinen1, L. Wendland1, F. Hartmann2, A. Furgeri2 1 Helsinki Institute of Physics 2 University of Karlsruhe	Abstract
13:50	IV.2 - **Annealing effects on the charge collection efficiency** Salvador Marti i Garcia on behalf of CNM-Barcelona, University of Liverpool and IFIC-Valencia RD50 groups	Abstract
14:10	IV.3 - **CiS technologies for radiation hard Silicon detectors** R.Roeder (D) CiS Institute for Microsensors gGmbH	Abstract
14:30	IV.4 - **Overview of results on charge collection in ATLAS strip detectors** V. Eremin, on behalf of CERN-ATLAS SCT group Ioffe Physico -Technical Institute, St Petersburg, Russia	Abstract
14:50	IV.5 - **Laser and beta source strip detector test setup in Prague** Zdenek Dolezal, Peter Kodys, Petr Kubik, Pavel Reznicek Institute of Particle and Nuclear Physics, Charles University, Prague	Abstract
15:10	IV.6 - **First results with oxygenated n-in-p detectors after irradiation** G. Casse, P.P. Allport, M. Lozano, S. Marti	
15:30 *Coffee Break (30 min)*		
16:00	IV.7 - **Description of the RD50 full detector system mask** Gianluigi Casse, Liverpool University	Abstract
16:20 (30min)	**Discussion: *Full Detector Systems*** *Chair/Convener: Gianluigi Casse*	
Session V: New Structures *Convener/Chairperson: Mahfuzur Rahman*		
16:50	V.1 - **Improved Near Beam Particle Tracking with Radiation Hard Si Detectors at LHCb** Alison G Bates (1), C Parkes(1), M Rahman(1), R Bates(1), M Wemyss(1), G Murphy(1), P Turner(2) and S Biagi(2) (1) The University of Glasgow (2) The University of Liverpool	Abstract
17:10	V.2 - **Activities of the US Chapter of CERN RD50 On the Development of Semi-3D Si Detectors** Zheng Li On behalf of the US RD50 members: BNL, FNAL, Purdue, Rutgers, and Syracuse and observers: CMU, JHU, OSU and UCSC BNL, FNAL, Purdue, Rutgers, and Syracuse, CMU, JHU, OSU and UCSC	Abstract
17:30	V.3 - **Silicon 3D detectors irradiated with pions and protons** Patrick Roy, G. Pellegrini, R. Bates, L. Haddad, V. O'Shea, K.M. Smith, V. Wright, M. Rahman Dept. of Physics and Astronomy, Glasgow University, G12 8QQ UK	Abstract

17:50	V.4 - **Simulation of irradiated silicon pixel detectors for future High Energy Physics experiments** Devis Contarato[1], Gregor Kramberger[2] 1, Institute for Experimental Physics, University of Hamburg 2, DESY, Hamburg	Abstract
18:10 (30min)	**Discussion Session:** ***New Structures*** *Chair/Convener: Mahfuzur Rahman*	

Collaboration Dinner

Departure CERN 19:15 Bldg.13 - Return to CERN 23:00

We will go to the "Holiday Inn" in Thoiry in France.

Take a closer look to the menu here

Tuesday, 20.5.2003 - Building 40 - room: S2-B01		
Session VI: New Materials *Convener: Juozas Vaitkus* *Chairperson:*		
8:50	VI.1 - **SiC activities at Linköping University** Anne Henry and E. Janzén Department of Physics and Measurement Technology, Linköping University, SE-581 83 Linköping, Sweden	Abstract
9:10	VI.2 - **Ion beam microscopy of charge transport in SiC and GaN detectors** Paul Sellin, D. Hoxley, A. Lohstroh, A. Simon, L. Cunningham, M. Rahman, J. Vaitkus. University of Surrey University of Glasgow Vilnius University	Abstract
9:30	VI.3 - **Electrical characterization and optimization of silicon carbide p+/n junctions for particle detectors** F. Moscatelli (a), Andrea Scorzoni (a), A. Poggi (b), G. C. Cardinali (b) and R. Nipoti (b) (a) Dipartimento d'Ingegneria Elettronica e dell'Informazione, Università di Perugia, via G. Duranti 93, 06125 Perugia Italy. (b) CNR- IMM Sezione di Bologna, via Gobetti 101, 40129 Bologna Italy.	Abstract

9:50	VI.4 - **Properties of irradiated SI-GaN and activation-mokification of defects in SiC** Juozas Vaitkus (1), W. Cunningham(2), A.Galeckas (1,3), E.Gaubas (1), V.Kazukauskas (1), M.Mikuz (4), E.Noah (5), M.Rahman (2), S.Sakai (6), K.Smith (2) Vilnius University, Vilnius, Lithuania; University of Glasgow, Glasgow, UK; The Royal Institute of Technology, Stockholm, Sweden; (4) University of Ljubljana, Ljubljana, Slovenia; (5)Imperial College, London, UK; (6) University of Tokushima, Tokushima, Japan.	Abstract
10:10 Coffee Break (30 min)		
10:40	VI.5 - **Simulation of SiC radiation sensors** Richard Bates, M.Rahman,W.Cunningham, T Quinn and T Nelson Glasgow University	Abstract
11:00	VI.6 - **Homoepitaxial growth of 4H-SiC layers in a hot wall Chemical Vapour Deposition system** Günter Wagner Institute of Crystal Growth	Abstract
11:20	VI.7 - **The innovation of GaAs technology for detectors.** Bruno Sopko, Z. Kohout, M.Solar, S. Pospíšil, T. Horažïovský D.Chren CTU Prague	Abstract
11:40	VI.8 - **Charge collection and photoluminescence characterisation of epitaxial SiC** S. Sciortino(1), G.Wagner(2), P.Vanni(3), S. Lagomarsino(1), Mara Bruzzi(1), F.Nava(3), S. Miglio(1), R. Schifano(4), A. Vinattieri (4) (1)INFN and Dipartimento di Energetica, Università di Firenze, Italy (2) Institut fur Kristallzuchtung, Max-Born-Strasse 2, D-12489 Berlin, Germany (3)Dipartimento di Fisica, Università di Modena e Reggio Emilia, Italy (4)INFM UdR Firenze, Via G. Sansone, Sesto Fiorentino, Firenze, Italy	Abstract
12:00 (30min)	**Discussion Session:** ***New Materials*** *Chair/Convener: Juozas Vaitkus*	
12:30 -14:00 Lunch		
14:00-14:30 Discussions in working groups		
Tuesday, 20.5.2003 - Afternoon - Building 40 - room: S2-B01		
14:30 to **17:30**	**RD50 - Collaboration Board Meeting** (closed session: open for collaboration board members only) *Chairperson: Eckhart Fretwurst*	Agenda

2nd RD50 Workshop on Radiation hard semiconductor devices for very high luminosity colliders,
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