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THE KAZUSA AKADEMIA PARK FORUM ON

THE SCIENCE AND TECHNOLOGY OF SILICON MATERIALS

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Kazusa Akademia Park, Chiba Prefecture

Organizing Committee of
Silicon Materials Science and Technology Forum

Kazusa Akademia Park Forum on The Science and Technology of Silicon Materials

Organized by Organizing Committee of Silicon Materials Science and Technology Forum

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Preface

With an increase in circuit integration and a corresponding decrease in the dimension of circuit pattern in microelectronic devices, the demand for defect control in silicon crystals is becoming increasingly severe. The tolerable density of defects in the active region of a device will continue decreasing towards zero as the giga-bit era of the 21st century approaches. The urgent issues at present are the reduction of grown-in defects in Czochralski silicon crystals, the minimization of metal contamination and suppression of slip in high temperature processing or epitaxial growth of thin films, the realization of ideal SOI structure and so on. The problems are intensified as the diameter of wafers increases to 300-400 mm.

The silicon materials technology of a high performance can be achieved most efficiently on the basis of detailed knowledge of silicon materials science. With such a background a forum has been organized at Kazusa Akademia Park to promote the progress in the science and technology of silicon materials and to record the state of the arts in 1997. The Forum specially aims 1) to promote interactions between basic and applied researches on problems related to the production of high quality silicon materials and the development of advanced processing, 2) to systematize the knowledge accumulated at industries and seek the seeds of basic research on the basis of it, 3) to discuss the ways of breakthroughs for problems of the moment, and 4) to offer lectures on the sciences and characterization techniques on which modern silicon materials technology is based.

The forum consists of lectures type presentations by 25 invited speakers and 32 contributed papers by poster presentations. All the participants stay at the same hotel in the Park and have an ample time for discussion.

We hope the Forum be a milestone for the progress in the science and technology of silicon materials.

November, 1997

K. Sumino
Chairman

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Contents

PREFACE iii
ACKNOWLEGMENTS iv

INVITED PAPERS

I. Future Image of Silicon Wafers 1

Demands for Silicon Wafers from the View Point of Device Fabrication 3
T. Kitano

The Ultimate Challenge of the 21st Century – Prospect of φ 400mm and Technological Breakthroughs – 15
K. Takada

Activity of the Wafer Engineering & Defect Science (WEDS) Consortium in USA 21
G. Rozgonyi

II. Heavy Metals in Silicon 23

Diffusion and Out-diffusion Behavior of Metals in Silicon Wafers during Annealing 25
T. Yoshimi, M.B. Shabani, S. Okuuchi and T. Shingyouji

Theories of Heavy Metal Elements in Silicon 35
H. Katayama-Yoshida

III. History of Silicon Technology 77

Historical Development of Gettering Technologies 79
H. Tsuya

IV. Fundamental Issues of Structural Defects in Silicon 95

Current Understanding of Diffusion and Point Defect Equilibria in Silicon: An Overview 97
U. Gösele, R. Scholz, P. Wagner and T.Y. Tan

First Principles Calculations on Vacancies in Silicon 109
A. Oshiyama

Point Defects at High Temperature Studied by the Measurement of Optical Absorption Spectra of Si 116
M. Suezawa

Vacancy Concentration Distribution as Determined by Measurements of Deep Levels Associated with N_2-Vacancy Complexes in Silicon Crystals 124
Y. Takano

Recent Progress in the Study of Defects in Silicon by Positron Annihilation 125
M. Fujinami

V. Control of Grown-in Defects 133

Grown-in Defects in Czochralski Silicon – Progress and Prospect – 135
N. Inoue

Octahedral Void Defects Causing Gate-Oxide Defects 145
M. Itsumi

Agglomeration Process of Excess Point Defects 157
M. Kiritani

Point Defect Diffusion during Melt Growth of Silicon Crystal 158
R. Habu

Defects in As-grown Czochralski Silicon : Measurement, Modelling and Simulation 173
J. Vanhellemont, E. Dornberger, D. Gräf, J. Esfandyari, U. Lambert, R. Schmolke, W.v. Ammon and P. Wagner

Control of Grown-in Defect Formation Process in Czochralski Silicon Crystals 197
K. Nakamura, T. Saishoji, M. Nishimura, S. Togawa and J. Tomioka

Crystal Originated Particles (COPs), Bulk Defects (including the OSF-Ring), Gate Oxide Integrity (GOI), and DRAM Yield 215
G. Rozgonyi, M. Tamatsuka, Ki-Man Bae and F. Gonzalez

VI. Advanced Epitaxial Wafers 235

Application of Epi, SOI Wafers to Advanced Devices 237
H. Yamamoto and H. Koyama

Advanced Epitaxial Growth – Low-Temperature Growth and Selective Growth – 257
A. Miyauchi, Y. Inoue, N. Akiyama, T. Suzuki, T. Uchino, T. Shiba, T. Ando, T. Hashimoto and A. Ohkawa

Silicon Epitaxial Wafer Characteristics and Characterization Techniques 273
Y. Kitagawara, Y. Hayamizu, T. Koide, H. Takeno and T. Yoshida

Process Issue of 300mm Wafers 286
T. Fukuda

Ⅶ. Future Prospect of SOI 299

On SIMOX Wafers for Advanced CMOS Device Manufacturing 301
K. Sakiyama, A.O. Adan and T. Naka

Bonded SOI Wafers Thinned by Plasma Etching and Delaminated by Hydrogen Implantation and Their Application to TFT 306
T. Abe and A. Auberton-Herve

Quality and Productivity of SIMOX Wafers 313
K. Izumi

CONTRIBUTED PAPERS

Ⅷ. Heavy Metals in Silicon II 329

Determination of Equilibrium Constant for Fe Gettering Reaction by Heavily Boron Doped Si Substrates 331
S. Tobe, Y. Hayamizu and Y. Kitagawara

Optimum Gettering Temperature of Iron Dominated by Size and Density of Oxygen Precipitates in CZ Silicon 335
H. Takahashi, H. Yamada-Kaneta and M. Suezawa

Impact of Light Illumination on the Recombination Lifetime of Transition Metal Doped CZ Silicon Wafers 339
K. Kurita and T. Shingyouji

IX. Fundamental Issues of Structural Defects in Silicon II 343

Migration of Interstitialcy-type Self-Interstitial 345
M. Yoshida, R. Tsuruno, Y. Kamiura, M. Takahashi and H. Tomokage

Basic Model for Impurity Diffusion in Silicon and its Application to Transient Enhanced Diffusion 349
M. Uematsu

On Point Defect Equilibria in Electronic and Elastic Extrinsic and Intrinsic Conditions 355
K. Wada

Fraction of Interstitialcy Component of Phosphorus and Antimony Diffusion in Silicon 361
T. Shimizu, T. Takagi, S. Matsumoto, Y. Sato, E. Arai and T. Abe

Field Drift of Plasma-Induced Defects in Phosphorus Doped Si by Reverse Bias Annealing (RBA) 365
J. Takeuchi, Y. Zaitsu, T. Shimizu, S. Matsumoto and K. Wada

Two Dimensional EBIC Study of Extended Defects in Silicon 369
T. Sekiguchi, S. Kusanagi and K. Sumino

Effect of Metallic Contmination on the Electrical Activity of Frank-partial Dislocations in Cz-Si 373
B. Shen, T. Sekiguchi and K. Sumino

Electron Beam Induced Current Study on Deformation-induced Dislocations in Silicon Crystals 377
S. Kusanagi, T. Sekiguchi and K. Sumino

Strength of Si Crystals at High Temperatures 383
I. Yonenaga

Characterization of Gravitational-Stress-Induced-Dislocations and Estimation of Onset of Collective Motion of Dislocations by Computer Simulation in Large-Diameter Silicon Wafer 387
H. Shimizu, S. Isomae, K. Minowa, T. Satoh and T. Suzuki

X. Oxygen and Hydrogen in Silicon 389

Influence of Heavy Boron Doping on Oxygen Precipitation Behavior of Czochralski Silicon Crystal and Its Computer Simulation 391
H. Takeno, K. Aihara, S. Tobe, Y. Hayamizu and Y. Kitagawara

Generation of pn Junction Leakage Current by Oxygen Precipitates in CZ Silicon 396
K. Kitahara, K. Nakai, K. Ishisaka and A. Matsumura

Defect States Caused by Oxygen Precipitation in Czochralski Silicon Crystals 400
M. Koizuka and H. Yamada-Kaneta

Annealing Behavior of Oxygen In-Diffusion From SiO_2 Film to Silicon Substrate 404
T. Abe and H. Yamada-Kaneta

Carbon-Enhanced Annihilation of Thermal Donors and the Generation of Self-Interstitials in Silicon 410
Y. Kamiura, T. Maeda, Y. Yamashita and M. Nakamura

Intensities of the Far-Infrared Absorption Lines of Oxygen in Silicon 416
H. Yamada-Kaneta

Formation of Hydrogen-Oxygen Complexes in Silicon 422
V. P. Markevich and M. Suezawa

EPR Study of a Hydrogen-Related Radiation-Induced Defects in Silicon 428
V. P. Markevich and M. Suezawa

XI. Control of Grown-in Defects II 433

Morphology of Grown-in Microdefects in Several Types of CZ-Si Crystals 435
M. Kato, H. Shigeno, T. Otogawa and Y. Kitagawara

Characterization of Grown-in Defects in Czochralski Silicon Crystals by Transmission Electron Microscopy 439
Y. Ikematsu, T. Mizutani, K. Nakai, M. Fujinami, M. Hasebe and W. Ohashi

Grown-in Defects in Czochralski Silicon Crystals Quenched During Crystal Growth 444
M. Okui, T. Tanaka, T. Kanda, T. Ono, K. Egashira and S. Kuragaki

Simulation Annealing of Cz-Si Growth for Void Defect Formation 446
T. Iwasaki, K. Nakai, T. Mizutani and Y. Ikematsu

The Relationship between Grown-in Defects and Thermal History in Cz-Si Crystal 450
J. Furukawa, N. Ono, K. Yasui, M. Kida and Y. Shimanuki

Radial Distribution of OSF and Cavity Determined by Non-equilibrium Incorporation of Oxygen and Vacancy 454
K. Tanahashi, N. Inoue and Y. Mizokawa

Direct Observation of Medium Field Breakdown Origin on MOS Capacitor Containing Grown-in CZ Crystal Defects 460
M.Tamatsuka, Z. Radzimski, G.A. Rozgonyi, S. Oka, M. Kato and Y.Kitagawara

Influence of Grown-in Defects on Gate Oxide Breakdown 464
H. Deai, A. Matsumura, H. Sakamoto, T. Iwasaki, and H. Harada

Comparison of Gate Oxide Reliability between Argon Annealed Wafer and Hydrogen Annealed Wafer 468
N. Yamada and H. Yamada-Kaneta

XII. SOI Problems 473

Change of Residual Strain by Heat Treatment for SOI Bonded Wafer 475
T. Iida, T. Itoh and Y. Takano

Evaluation of Particle on SOI Wafers 481
H. Naruoka, Y. Yoshida, T. Iwamatsu, Y. Yamaguchi, T. Ipposhi and H. Yamamoto

Experimental Verification of Buried-Oxide with Over-8MV/cm Breakdown Fields in Low-Dose Simox Wafers 485
K. Kawamura, A. Matsumura, T. Yano, I. Hamaguchi, Y. Nagatake, S. Takayama, M. Tachimori and K. Kurumada

Late arrival papers

Agglomeration Processes of Excess Point Defects 490
M. Kiritani

Vacancy Concentration Distribution as Determined by Measurements of Deep Levels Associated with N_2-Vacancy Complexes in Silicon Crystals 506
Y. Takano and K. Kakumoto