Joint MORIS/ISOM'97

Magneto-Optical Recording International Symposium
International Symposium on Optical Memory

OCTOBER 27-31, 1997
YAMAGATA, JAPAN

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Technical Program
MORIS 1997

October 28, 1997 (Tuesday)

WELCOME AND OPENING REMARKS

KEYNOTE SESSION

Tu-A-01 Optical Storage; Science and Technology
Y. Mitsuhashi
Tu-A-02 Nonlinear Magneto-Optics
T. Rasing

Spin Electronics

Tu-B-01 The Art of Spin Electronics (Invited)
J.F. Gregg
Tu-B-02 Magnetooptical Properties and Magnetization Reversal in Micro Fabricated Dots from Ultrathin Cobalt Layers (Invited)
B. Bartenlian, J.-P. Jarnet, P. Veillet, N. Bardou, F. Rousseaux, D. Decanini, P. Meyer, J. Ferre, S. Lemerle, C. Chappert, **Y.** Suzuki and P. Bruno

ADVANCED MEASUREMENT I

Tu-C-01 The Direct Observation of Magnetisation Reversal in Films of Interest for High Density Information Storage (Invited)
J.N. Chapman, J. Rose, I.S. Weir; I.S. Molchanov and D.M. Titterington
Tu-C-02 Combined MagnetoopticIMagnetic Force Microscopy (Invited)
T. Pokhil
Tu-C-03 Scanning Near-Field Magneto-Optic Microscopy: Quantitative Determination of Faraday and Kerr Effects
P. Fumagalli, G. Eggers, **A.** Rosenberger, N. Held and *A.* Munnemann

ADVANCED MEASUREMENT II

Tu-D-01 Quantitative Imaging of Magnetic Domains with the Transmission X-ray Microscope at Bessy I
P. Fischer, T. Eimuller, G. Schutz, P. Guttmann, G. Schmahl, K. Prueg I and G. Bayreuther
Tu-D-02 The Spin SEM Observation of 0.1-E m Marks Recorded by Magnetic Field Modulation on an MO Disk
T. Kohashi, H. Matsuyama, K. Koike, Y. Tanaka, H. Awano and Y. Murakami
Tu-D-03 Theory of the Diffraction Magneto-Optical Effects of the 2D-Magnetic Ellipsoids Array
Y. Suzuki, C. Chappert and P. Bruno
Tu-D-04 Magnetic Domain Dynamics in FeTb Thin Films
B. Lanchava, K. Matsumoto and H. Hoffrnann

MULTILEVEL & DOMAIN EXPANSION READOUT

Tu-E-0l Multi-Level Partial Response Recording in MO
M. Arai and S. Kobayashi
Tu-E-02 Multi-Wavelength Read-out for Double Layered MO Disk
K. Nakagawa, A. Itoh, K. Shimazaki, M. Yoshihiro and N. Ohta
Tu-E-03 Multiple Pulse Response of MAMMOS Read-out
N. Takagi, A. Yamaguchi, Y.Uchihara, S. Sumi, H. Awano, H. Shiraiand N. Ohta
Tu-E-04 High-Density Magneto-Optical Recording with Domain Wall Displacement Detection
T. Shiratori, E. Fujii, Y. Miyaoka and Y. Hozumi
Tu-E-05 Magnetic Expansion of the CAD Disk with a TM-rich GdFe Layer
K. Takahashi and K. Katayama
Tu-E-06 Light Intensity Modulation Type Magnetic Domain Expansion Readout MO (LIM MAMMOS)
K. Shimazaki, H. Watanabe, M. Yoshihiro, H. Awano, H. Takao, Y. Xiao and N. Ohta

October 29,1997 (Wednesday)

SHORT WAVELENGTH RECORDING

We-F-01 Application of SHG Blue Laser to Optical Disk (Invited)
M. Kato, Y. Kitaoka, K. Yamamoto and K. Mizuuchi
We-F-02 Short Wavelength Phase Change Recording R. van Woudenberg (Invited)

We-F-03 Study of Magneto-Optical Kerr Effect beyond 5 eV-Co Alloys and Multilayers (Invited)
W. van Drent and T. Suzuki
We-F-04 The Path from DVD (Red) to DVD (Blue)
F. Yokogawa, S. Ohsawa, T. Iida, Y. Araki, K. Yamamoto and Y. Moriyama

2 GBIT/INCH^2 TECHNOLOGIES

We-G-01 Write-Once Type Dual-Layer Optical Disk Using Te-O-Pd Phase-Change Films
K. Nishiuchi, H. Kitaura, N. Yamada and N. Akahira
We-G-02 Optical Design for a Double DVD-RAM Phase Change Disc
J.M. Bruneau, B. Bechevet and C. Germain
We-G-03 CNR Improvement of Conventional LIMDOW Media for Higher Density Recording
A. Okamuro, T. Hosokawa, M. Hashimoto, A. Sakemoto, T. Sugiyama, N. Ogihara, I. Kimura, K. Miyata and T. Niwa
We-G-04 A Study of Asymmetry Compensation for Partial-Response Maximum-Likelihood Detection in Optical Recording Media
M. Kagawa, J. Nakano, T. Abiko and S. Igarashi

ADVANCED MATERIALS FOR OPTICAL RECORDING

We-H-01 Phase-Change Optical Disks for a High Data Transfer Rate (Invited)
M. Okada, M. Ogawa, M. Kubogata, S.-I. Ohkubo and M. Itoh
We-H-02 Novel High-Performance Media for Magneto-Optical Recording: Tb/Bi/FeCo and Tb/Pb/FeCo Superlattices (Invited)
R.H. Victora, C.F. Bmcker, T.K. Hatwar, J.E. Hurst, B. Uryson and D. Karns
We-H-03 5 Gbit/inch^2 MO Technology (Invited)
A. Takahashi, M. Kaneko, H. Watanabe, Y. Uchihara and M. Moribe

LAND & GROOVE RECORDING

We-1-01 High-Density Recording Capability of Five-Layered Phase-Change Optical Disc
N. Nakamura, N. Morishita, K. Suzuki, K. Yusu, K. Ichihara, M. Kuwahara , H. Hasegawa and H. Kobori

We-1-02 MO Detection Using an Optical Phase Shifter in Higher Track Density Land/Groove Recording
A. Fukumoto, S. Kai, S. Masuhara and K. Aratani

We-1-03 Influence of Interference Layer on MSR L&G Recording
T. Kawano, N. Uchida and K. Narita

We-1-04 Higher Density MO Disks with MSR and Deep Groove
S. Morita, M. Nishiyarna and M. Fumta

POSTER SESSION We-P
MO MATERIALS & PHYSICS

We-P-01 Enhancement of Magnetic Coercivity in Co/Pt Sputtered Multilayers
S. Honda, K. Ogura, M. Nawate and M. Komatsu

We-P-02 Magneto-Optical Properties of Sputtered Co/Pt Alloy Films with Perpendicular Anisotropy
M. Li, Z.-H. Jiang, W.-M. Zheng, L.-Y. Chen and D.-F. Shen

We-P-03 On High Magnetic Anisotropy Ordered Phase Co^3Pt Alloy Films with High Magneto-Optical Kerr Activity
Y. Yamada, T. Suzuki, E.N. Abarra, W. van Drent and G.N. Phillips

We-P-04 Perpendicular Magnetic Anisotropy and Magneto-Optical Spectra of MBE Grown $MnPt^3$/Co Multilayers
T. Kato, S. Iwata, M. Kokuryu and S. Tsunashima

We-P-05 Magnetic and Magneto-Optic Properties of Ternary Co/Pt/Ni/Pt Multilayers
R. Krishnan, A. Das, N. Keller, H. Lassri, M. Porte and M. Tessier

We-P-06 Temperature-Induced Magnetization States and Processes in Exchange Coupled Double Layers with Interface Walls
R. Sbiaa, H. Le Gall, S. Pogossian and J.M. Desvignes

We-P-07 Thermal Stability of Amorphous Tb-Fe Alloys Estimated from Atomic Diffusivities
K. Yamada, K. Fukamichi and Y. Iijima

We-P-08 Effect of Coherent In-Plane Anisotropy on Magnetic Order in Amorphous HoFe Alloys
E. Masago, T. Saito, K. Shinagawa and T. Tsushima

We-P-09 Quantum Theory of Coercive Field for Magnetic Multilayers at Finite Temperatures
L. Zhou and R. Tao

We-P-10 Temperature Dependence of the Amorphous SmTbFeCo Magneto-Optical Films
Z.Y. Lee, Z.Q. Lu, R. Xiong, X.F. Yang, J.J. Qiu, K. Wang and Z.Q. Hu

We-P-11 Mn-Co-Cu Spinel Ferrite Films -New Prospective Material for Magneto-Optical Recording Applications
Z. Simsa, P. Tailhades, C. Baubet and L. Stichauer

We-P-12 Stoichiometry of Pure and Bi-Substituted Yttrium Iron Garnet Films Prepared by Ion Beam Sputtering
M. Guillot, M. Desvignes, H.L. Le Gall, J.B. Youssef and Y. Dumond

We-P-13 Magneto-Optical Properties of Co- and Ti-Substituted Barium Hexaferrite Films Prepared by the Sol-Gel Method
Z. Simsa, J. Bursik and R. Tesar

MAGNETIC DOMAIN PHYSICS

We-P-14 Quantitative Determination of Domain Dyanmics Parameters in Co/Pd Multilayered Magneto-Optic Recording Media
S.-B. Choe and S.-C. Shin

We-P-15 Sequential Temperature-Induced Phase Transitions with Dynamic Doma in Expansion in Exchange Coupled Multilayers
H. Le Gall, R. Sbiaa and S. Pogossian

We-P-16 Theoretical Discription on Amplification of Magneto-Optical Recording in Magnetic Domain Expansion Technique
Y. Jiang, L. Hu and R. Tao

We-P-17 Domain Formation of TbFeCo films on Smoothed Underlayer Surface
J. Ushiyama, H. Awano, H. Miyarnoto, K. Andoh, H. Sukeda and M. Takahashi

We-P-18 Quantitative Analysis of Domain Walls in M-O Thin Films by Magnetic Force Microscopy
G.N. Phillips, Y. Ito and T. Suzuki

We-P-19 Simulation of Thermomagnetic Recording in Rare Earth-Transition Magnetic Film Using Very Small Laser Spot
X.Y. Yu, Y. Ban, S. Iwata and S. Tsunashima

We-P-20 Reproducibility and Interchangability of LIMDOW-MO Disk
J. Saito, K. Miyata, H. Akasaka, N. Ogihara, H. Hanada, T. Hosokawa , A. Okamuro, A. Sakemoto, T. Kawano, Y. Tanabe, H. Yoshida, H. Nomura, T. Chiba and Y. Fukushima

MASTERING, SUBSTRATE, RECORDING MEDIA AND RELIABILITY TEST

We-P-21 Crystallization Time of Phase Change Optical Discs Dynamically Laser-Annealed
B.I. Cho, H.C. Hong, B.L. Gill and T.H. Ahn

We-P-22 Analysis of Variation in Mark Length with Heat-Mode Recording
K.G. Lee, T.S. Lee, S.H. Park and S.G. Kim

We-P-23 Optical and Electrical Properties and Electronic Structure of $Ge_2Sb_2Te_5$
Y. Ueshima, S. Ogawa, S. Yamanaka and I. Morimoto

We-P-24 Transport Properties of SbTeSe Phase-Change Media
C.Y. Wu, Y.D. Yao and D.R. Huang

We-P-25 Thermal and Optical Properties of Metal Azo Dyes for DVD-R Disk
Y. Suzuki, M. Horie, Y. Okarnoto, Y. Kurose and S. Maeda

We-P-26 Effect of Preparation Conditions of Pt Underlayer on the Magnetic and Magneto-Optical Properties of Sputtered Copt Alloy Films
M. Li, K. Xun, Z.-H. Jiang, Z.-Q. Zou and D.-F. Shen

We-P-27 Accuracy Depending on Scanning Angle in Dynamic Spot Size Measurement Method for Optical Disk Drive
A. Sugiura, T. Kubo, A. Ogawa and T. Kaneko

We-P-28 BER and Reflectivity Degradiation Caused by Dust Adhesion to Optical Disk
H. Senga, T. Kubo, H. Kikawa and Y. Kawata

We-P-29 Disk Mastering Process with an All-Solid-state Ultraviolet Laser
Y. Kaneda, S. Kubota, H. Yamatsu, M. Furuki, K. Kurokawa and T. Kashiwagi

We-P-30 Land/Groove ID Format for Next Generation 3.5" MO Disks
S. Kuroda, K. Iida, M. Moribe and K. Shono

We-P-31 Optimizing Substrate Polymers to Optical Disk Requirements by Computer Simulations
F. Bruder, R. Plaetschke and H. Schmid

We-P-32 New Recordable Optical Disc with Metal Thin Film and Organic Film on Polycarbonate
Y.J. Huh, K.S. Min and S.H. Kim

We-P-33 Persistent Spectral Hole Burning of Eu^{3+} Ions in Silicate Glasses
K. Hirao, K. Fujita, K. Tanaka and N. Soga

We-P-34 On the Possibility of High Density Data Storage Based on Modulation-Doped Electron Trapping Materials
Y. Wu and C.T. Chong

We-P-35 Quantum Yield of Naphtacenequinones Embedded in Polymer Matrices
V.I. Biniukov, N.I. Koroteev, S.A. Krikunov, S.A. Magnitskii, D.V. Malahov, V.V. Shubin and N.T. Sokolyuk

October 30,1997 (Thursday)

KEY COMPONENTS

Th- J-01 Lens Design for CD/DVD Compatible Optical Heads (Invited)
Y. Tanaka
Th-J-02 Dual Wavelength Optical Head Using Wavelength Selective Filter for 0.6 mm and 1.2 mm Substrate Thicknesses
R. Katayama, Y. Komatsu and Y. Yamanaka
Th-J-03 Integrated DVD Optical Heads
T. Ito, H. Hayashi, K. Kasazumi, Y. Komma, H. Yamamoto, D. Ogata, S. Nishino and S. Mizuno
Th- J-04 Optical Waveguide Device for a Magneto Optical Disk Head
K. Minami, H. Yamamoto, A. Yoshimoto, Y. Yoshida and Y. Kurata

DOMAIN DYNAMICS & HIGH DENSITY MO RECORDING

Th-K-01 Reading Dynamics in Magnetic Super Resolution Media (Invited)
M.H. Kryder, M. Du, S.E. Kabakoff and D.C. Karns
Th-K-02 High Density Magneto-Optical Disc by Magnetic Field Modulation with a Capacity of 650 MB/E" 64 mm
M. Shinoda, M. Kanno, S. Masuhara, M. Hattori and M. Kaneko
Th-K-03 LIMDOW Media with Magneto Static Coupling MSR Function
T. Hosokawa, A. Okamuro and K. Miyata
Th-K-04 Evaluation of a 120 mm Sized Magneto-Optical Disk System of Over 6 Gb Capacity
Y. Tanaka, S. Sumi, N. Matsubayashi, H. Sato, H. Awano, M. Matsuura, G. Fujita and T. Watanabe

ULTRA HIGH DENSITY OPTICAL RECORDING

Th-L-01 High Speed Near Field Optical Technology for Ultrahigh Density Storage (Invited)
M. Ohtsu
Th-L-02 Narrow Pitch Tracking for AFM Recording Using Optical Head
K. Nakarnura, H. Koyanagi and S. Hosaka
Th-L-03 Optical Heads Using VCL Arrays with Nano Meter Size Output Tip -Windows for a Tera Byte Optical Disk
K. Goto
Th-L-04 Super High Density Magneto-Optical Disk (Invited)
W. Mitchell
Th-L-05 Applications of Holographic Memory (Invited)
D. Psaltis and F. Mok
Th-L-06 High Density Mastering Using Electron Beam
Y. Kojima, H. Kitahara, 0 . Kasono, M. Katsumura and Y. Wada

POSTER SESSION Th-Q
COMPONENTS, SYSTEMS & FUTURE TECHNOLOGIES

Th-Q-01 An Analysis of Noise Power Spectrum Due to Mark Variations of Optical Disk System
S.J. Oh, S. Jo and S.K. Kim
Th-Q-02 A New Type of Pick-up Actuator Using a Leaf Spring Suspension
S.M. Kim, and D.G. Gweon
Th-Q-03 Optimum Design of a Compact Pick-up Actuator for High Precision, Fast Access CD-ROM Devices
S.M. Kim and D.G. Gweon
Th-Q-04 An Optical Head with Special Annular Lens for LDP Compatible DVD Pick up
J.-H. Yoo, C.-W. Lee, K.-H. Cho, H.-S. Choi and J.-W. Lee
Th-Q-05 Integrated Optical Head with New One-Beam Tracking Detection for Magneto-Optical Disk
A. Arai, T. Hayashi, T. Nakamura, T. Nagata, M. Takashima, H. Aikoh, H. Tomita, H. Nakanishi, S. Ijima and A. Yoshikawa
Th-Q-06 Crosstalk Canceller with Coaxial Dual Beams
K. Kasazumi and M. Kato
Th-Q-07 CD/DVD Compatible Optical Pick-up Actuator for High Density & High Speed
I.-H. Choi, W.-E. Chung, Y.-J. Kim, I.-S. Eom, H.-M. Park and J.-Y. Kim
Th-Q-08 Dual Lens Actuator and Magnetic Spring for DVD/CD Compatible Pickup Heads
M.G. Lee, D.-G. Gweon, K. Lee and K.S. Song
Th-Q-09 ECR Sputtered Antireflection Coatings on Laser Facets for Optical Memory Applications
Y.-J. Kim, M. Matsumoto, T. Ikura, R. Tateno, M. Suzuki and K. Goto
Th-Q-10 Fundamental Technology and Experiments of Lensless Optical Floppy Disk System
M. Suzuki, Y. Hasegawa, H. Kawai and K. Goto
Th-Q-11 Multi-Beam Optical System for Optical Tape Recording
H. Tokumaru, H. Okumura, K. Arai, N. Kawamura and S. Yoshimura
Th-Q-12 Focus Sensing Method for Multi-Beam Head in Optical Tape Recording System
K. Arai, H. Okumura, N. Kawamura, S. Yoshimura and H. Tokumaru
Th-Q-13 Couple-Enhanced Control for Optical Disk Drives
J.-D. Yang, L.-F. Pan, X.-D.Pe i and D.-Y. Xu
Th-Q-14 One-Pass Variable Bit Rate MPEG2 Video Coding Method for Digital Storage Media
S. Kondo and H. Fukuda
Th-Q-15 Super-Resolution Optical Readout System with Partial Response Maximum Likelihood Detection
T. Tanabe and H. Dobashi
Th-Q-16 Superresolution Technique with Improved Performance Both in Energy -Efficiency and Frequency Characteristics
Y. WU, C.T. Chong
Th-Q-17 Photostimulable Luminescence Glasses as a Novel Optical Memory Material
K. Hirao, J. Qiu and Y. Shimizugawa
Th-Q-18 Three-Dimensional Optical Storage inside Various Glasses by Using a Focused Femtosecond Pulsed Laser
J. Qiu, K. Miura and K. Hirao
Th-Q-19 Two-Photon Single Beam <<Bit by Bit>> Writing and Fluorescent <<Page by Page>> Reading 2.5 D Femtosecond Optical Data Storage System
N.I. Koroteev, S.A. Krikunov, S.A. Magnitskii, D.V. Malahov and V.V. Shubin
Th-Q-20 The Optical Design for Near Field Optical Approach Using Solid Immersion Lens for High Density Recording
M. Bimkawa, Y. Itoh, Y. Tanaka and T. Suzuki
Th-Q-21 Optical Readout Method Using High Resolution Reflectometer with Spectral Domain Interference
T. Funaba, N. Tanno and H. Ito

MAGNETO OPTICS

Th-Q-22 Optics and Magnetooptics of $SrRuO_3$
E. Kulatov, H. Ohta, J.S. Dodge, Y. Uspenskii and S. Halilov
Th-Q-23 Simplified Analytic Formulae for Magneto-Optical Kerr Effects in General Cases
C.-Y. You and S.-C. Shin
Th-Q-24 An Oscillation of Magneto-Optical Kerr Rotation Due to Quantum Siz e Effect in Ultra-Thin Au (001) Wedge Films
T. Katayarna, S. Yuasa, Y. Suzuki, T. Yori and M. Nyvlt
Th-Q-25 Magneto-Optical Spectra in FeIAu Superlattices Modulated by Non-In teger Atomic Layers
K. Sato, E. Takeda, M. Akita, S. Mitani, K. Takanashi and H. Fujimori
Th-Q-26 Effect of Roughness on the Interface Contribution to Polar Kerr Effect in Au/Co Ultrathin film Structures
R. Urban, M. Nyvlt, S. Visnovsky, J. Ferre, D. Renard, M. Galtier and P. Beauvillain
Th-Q-27 Magneto-Optical Spectra of Ultrathin Co Films Sandwiched by Pt Layers
T. Kato, S. Oikawa, S. Iwata, J. Yamada and S. Tsunashima
Th-Q-28 Enhancement of Magneto-Optical Effects in Ultra-Violet Photon Energies Through Pt in TbFeCo/Pt Multilayers
Y. Itoh, W. van Drent, M. Bimkawa and T. Suzuki

MSR, MAMMOS & OTHERS

Th-Q-29 Gd-Fe-Co-Bi Film as Readout Layer of CAD MSR Media
M. Tabata, T. Kobayashi, S. Shiomi and M. Masuda
Th-Q-30 Control of Mask Formation Field on Trilayer Double - Mask RAD Media
T. Sugimoto, K. Tamanoi, K. Matsumoto, T. Tanaka and K. Shono
Th-Q-31 Influence of Write Power on Readout Magnetic Field of Trilayered Double-Mask RAD Media
K. Tamanoi, K. Matsumoto, T. Sugimoto, T. Tanaka, T. Ikeya, M. Mihara and K. Shono
Th-Q-32 CNR Improvement Using Pulsed-Laser Readout on Magneto-Optical Disks
W.-K. Hwang, P.-Y.L iu, T.-H. Jen, B.-M. Chen and H.-P.D. Shieh
Th-Q-33 High Speed Readout of 0.1 E m Domain Expansing on the MAMMOS Disk
H. Awano, H. Shirai, H. Watanabe, K. Shimazaki, M. Yoshihiro and N. *Ohta*
Th-Q-34 Strategies for Reducing the Effects of Thermal Interference in Optical Recording
M.K. Loze and C.D. Wright
Th-Q-35 Flying Head for Hard Disk Using Magnetic Garnet Film
T. Terada, R. Tsuchiya, K. Honda, M. Tornita, T. Nomura, T. Furuoya, T. Kakezawa and S. Kato
Th-Q-36 Resolution Issues in Confocal Magneto-Optic Scanning Laser Microscopy
C.D.W right and P.W. Nutter
Th-Q-37 The Effect of Film Stress on Surface Morphology and CN Ratio of a Garnet Film
R. Sato, N. Kawamura, N. Ishli, I. Tanaka, H. Tokumaru and T. Tamaki
Th-Q-38 Modelling of Multi-Valued Magneto-Optical Recording in Granular Materials
H. Mizuseki, K. Kikuchi, K. Tanaka, M. Ishihara and Y. Kawazoe

ULTRA HIGH DENSITY OPTICAL RECORDING

NIGHT SESSION

Title: 20 Gbyte Memory Technologies

NS-1 Optical Storage in IT Industry
NS-2 Road Map for Optical Storage
NS-3 Future MO
NS-4 Future DVD

NS-5 World Trend in Optical Storage Technologies

October 31,1997 (Friday)

DRIVE TECHNOLOGY

Fr-M-01 Mechanical Technologies of Magneto-Optical Disk Drives (Invited)
J.-I. Ichihara

Fr-M-02 A CD-R Compatible DVD Pickup with a Lens for 780 nm and 650 nm W (Invited)
avelengths C.W. Lee, C.S. Chung, J.H. Yoo, Y.H. Lee, T.K. Kim,Y.K. Son, S.J. Kim, P.Y. Seong and K.S. Kim

Fr-M-03 A PRML Simulator to Evaluate the Influence Caused by Various Kinds of Deterioration Factors in Optical Discs
Y. Kashihara, Y. Sakai, Y. Okamoto and H. Kobori

Fr-M-04 New Architecture and Application of VOD System
T. Mori, A. Mizugaki and Y. Ohba

Fr-M-05 Phase-Change Optical Disk Applied to DVD-Authoring-Systems
K. Nagata, T. Saimi, S. Furukawa, K. Nishiuchi, N. Yamada and N. Akahira

Fr-M-06 High Density Reproduction System Using a Cross-Talk Canceler
H. Kuribayashi, S. Miyanabe, Y. Tornita, M. Ogasawara and K. Yamamoto

ULTRA HIGH DENSITY OPTICAL RECORDING

PHASE CHANGE DISKS & MASTERING

Fr-N-01 High Density Optical Disc with Ag-In-Sb-Te Phase Change Recording Material
H. Deguchi, M. Shinotsuka, H. Yuzurihara, M. Kinoshita, M. Harigaya, M. Abe and Y. Kageyama

Fr-N-02 Nitrogen Doping Effect of Phase Change Optical Disks
R. Kojima, S. Okabayashi, T. Kashihara, K. Horai, T. Matsunaga, E. Ohno, N. Yamada and T. Ohta

Fr-N-03 Phase-Change Optical Disk for DVD-RAM Having an Interface Layer
N. Yamada, M. Otoba, K. Kawahara, N. Miyagawa, H. Ohta, N. Akahira and T. Matsunaga

Fr-N-04 Write Precompensation Technique in a Mastering Process (Invited)
S. Kobayashi, T. Ishimoto, K. Fujimiya and H. Yamatsu

Fr-N-05 High Density Optical Disc Mastering Using Photobleachable Dye
T. Higuchi, Y. Okumura and T. Iida

CLOSING REMARKS