Technical Program
MORIS 1992

Monday, December 7, 1992

OPENING AND INTRODUCTORY REMARKS
Chen, T.

SESSION Ma: KEYNOTE TALKS

Ma-1 Evolution of Magneto-Optical Recording Material (Invited)
Uchiyama S.
Ma-2 Critical Assessment of Magneto-Optical Recording Technology (Invited)
Jipson V.

SESSION Mb: MULTILAYERS AND ULTRA-THIN FILMS

Mb-1 Microstructure Magnetic Property Relationships in Sputtered Pt/Co Multilayers (Invited)
Carcia, P.**,** Li, A. ***and*** Zeper, W.
Mb-2 Analysis of Magneto Optical Spectra in Pt/Co and Pt/Fe and Multilayers using Optical Constants Determined by Reflective Measurements Between 0.5 and 25eV (Invited)
Sato, K.
Mb-3 Study of CoBased Multilayers by Brilliouin Light Scattering (Invited)
Hillebrand, B.
Mb-4 Characterization of Magneto-Optical Media by Magnetic Force Microscopy (Invited)
Van-Kestern, H. , Jacobs, B., and Van Engelen G.
Mb-5 Magneto-Optical Effects of Ultra Thin and Multilayered Fe Films (Invited)
Suzuki, Y.

POSTER SESSION Mp

Mp-1 Mossbauer Study of Laser-Annealed Tb-Fe Films For Magneto-Optic Recording
Vvedensky, B., Gadetsky, S., Voropaeva, E., Kochetkov, V., Rusakov, V.
Mp-2 A Systematic Study of Magnetic Anisotropy in Fe-Rare Earth Multilayers
Mibu, K., Hosoito, N. and Shinjo, T.
Mp-3 Epitaxial PtFe(001) Films with Perpendicular Magnetic Anisotropy
Lairson, B., Visokay, M., Sinclair, R. and Clemens B.
Mp-4 Evaporated Co x Ni(1-x)Pt Multilayers for Magneto Optical Recording
Mes, M., Lodder, J., Imamura, N. Takahata, T., Moritani I.
Mp-5 Exchange Coupled Ndx Tby(FeCo)(l-(x+y)) Layers for Magneto-Optic Applications
Bojarczuk, N., Gambino, R., Plaskett, T., Ruf, R.
Mp-6 In-Situ Measurement of Stress for Co-Pd Multilayer Films During Fabrication by Rf-Sputtering
Akimoto, H., Sugimoto, T.; Nakagawa, K. and Itoh, A.
Mp-7 Layer Modulated Co-Pt Multilayers with Enhanced Kerr Rotation Angles

Yusu, K. and Inomata, K.

Mp-8 Magnetic And Magneto-Optical Properties of Co-Pt Multilayer Structuers
Graves, S., Grundy, P., Pollard, R., Atkinson, *R.*

Mp-9 Magnetic And Magneto-Optical Studies of Tb-Fe/Pt Multilayers
Krishnan, R., Lassri, H., Porte, M. and Tessier, M.

Mp-10 Microstructural Evolution And Magnetic Anisotropy of Co/Pt Nanostructure
Krishnan, K., Cho, N. and Zhang, B.

Mp-11 Microstructure and Nanocrystal Investigation of Rf-Magnetron-Sputtered TbFeCo Thin Film with STM
Wu, Z. and Gan, F.

Mp-12 MO Signal in Co-Pt And Cd-Pd Alloy Disks: Comparison of Respective Multilayers and TbFeCo
Weller, D., Hurst, J. Notarys, H. Brandle, H., Farrow, R., Marks, R., Harp, G.

Mp-13 Perpendicular Magnetic Anisotropy and Strain Evaporated Co-Pt and Co-Pd Alloys
Weller, D., Chappert, C., Brandle, H., Gorman, G., Farrow, R., Marks, R., Harp, G.

Mp-14 NdFeCo Trilayer Amorphous Films with High Kerr Rotation at Short Wavelengths
Iiyori, H. and Takayama, S.

Mp-15 Polycrystalline Garnet Bilayer Films for Magneto Optical Recording
Shimokawa, K, Dohnomae, H. and Mukai, T., Lawa,ira. M/. Ta,alo. t/. Satp. R/.Lakiura, M. and Nomura, T.

Mp-16 Properties of rf Sputtered Co/Pt and Co/Pd Multilayers
de Haan, S., Lodder, J., de Haan, P., Katayama, *T.*

Mp-17 High Coercivity Pt/Co Multilayers
Pitcher, P., Miller, J., Pearson, D. and Gurney, P.

Mp-18 Stacked Pt/Co Multilayers with Independent Control of Coercivity and Curie Temperature
Pitcher, P., Miller, J., Pearson, D., Gurney, P.

Mp-19 Structured Magnetic And Magneto-Optical Properties of MnBi Doped with Rare Earth Element Thin Films
Fang, R., Liu, J. and Dai, D. Ma, T.

Mp-20 Surface And Bulk Anisotropy of Re-Tm Films For Magneto-Optic Recording
Vvedensky, B./ Kavalerov, V., Kochetkov, V.

Mp-21 The Effect Of Metal Elements of A1 Alloy Reflection Films on Sensitivity And Reliability of Magneto-Optical Disks
Onishi, T., Yamamoto, S., Yoshikawa, K. and Koga, Y.

Mp-22 The Effect Of RF Power on The Magneto-Optical Properties of Barium Ferrite Thin Films
Kotnala, R., Tripathi, R., Das, B.

Mp-23 The Temperature Dependence of Magnetic And Magneto-Optical Properties for (Pr.Nd.Sm) -(Tb.Dy)FeCo(Tb.Dy)FeCo Couple-Bilayer Films
Zhu, P., Lee, Z., Liu, X, Xu, Z., Hu,Y., and Lin, G.

Mp-24 Transmission Electron of Microscopy of Epitaxial Fe/Pt Multilayers
Visokay, M., Lairson, B., Clemens, B. and Sinclair, R.

Mp-25 Growth Anisotropy of Fractal Domain Structures
Sayko, G., Zvezdin, *A.*

Mp-26 Interlayer Exchange Coupling in (Co/Pt) Multilayer Films by Ferromangetic Resonance
Zhang, Z. and Wigen, P., Suzuki, *T.*

Mp-27 Magnetic Properties of Kr-Sputtered Tb/FeCo Multilayers
Karube, H., Matsumura, K. and Okada, Osamu

Mp-28 Perpendicular Magnetic Anisotropy and Magneto-Optical Properties of FeCo-Pt Multilayer Films
Iwata, S., Notarys, H., Parkin, S. and Suzuki, T.

Mp-29 Observation of Micromagnetic Dynamics in Magneto-Optical Recording Media
Wu, Te-Ho, Bernacki, B. and Mansuripur, M.

Mp-30 Electronic Influence of Transition Metals on the Perpendicular Magnetism of MBE-Grown Co/Pd
Van Leeuwen, R., Wiedmann, M., Engel, B. and Falco, C.

Mp-31 Large Perpendicular-Anisotropy, High-Coercivity Co-Pt Alloys for Magneto-Optical Recording
Farrow, R., Geiss, R., Gorman, G., Harp, G., Marks, R. and Marinero, E.

POSTER SESSION Mq

Mq-1 Magnetic Properties and Texture Control of the PtMnSb-MnSb and Mn2Sb Two-Phase Films by Solid State Reaction of the Multilayers
Matsui, T., Iketani, N., Nakamura, H., Morii, K. and Nakayama, Y.
Mq-2 Optimum Sputtering Conditions to Improve Magneto-Optical Recording of DyFeCo Films
Le Gall, H., Zbiaa, R., Yuan, Y. and Chevrier, F.
Mq-3 Reliability of Pt/Co Magneto-Optical Disk with a Simple Structure
Sumi, S., Teragaki, Y., Kusumoto, Y. and Torazawa, K.
Tsunashima, S, adn Uchiyama S.
Mq-4 An Evaluation Method of Recording Characteristics of The Light Intensity Modulation Direct Overwrite (DOW)
Ito, M., Nakaki, Y., Tsutsumi, K. and Ito, O.
Mq-5 An Intermediate Layer for Overwriteable Five Layer Media
Mihara, M., Tanaka, T., Kitade, Y., Nanba, Y. and Hasimoto, Y.
Mq-6 Control of Exchange Coupling for Overwrite by Nitrogen Plasma Treatment
Kawano, T., Kobayashi, Y.
Mq-7 Direct Overwriting and Super Resolution Readout by Exchange-Coupled Multilayer Film
Fujii, Y., Nakaki, Y., Tokunaga, T. and Tsutsumi, K.
Mq-8 Laser Power Modulation Direct Overwrite on Co/Pt Multilayer
Kikitsu, A. and Ichihara, K.
Mq-9 Overwrite Recording and Reading on Quadrilayer MO Disks Using an Optical Head with Red-Light LD
Nakaki, Y., Tokunaga, T., Fukami, T. and Tsutsumi, K.
Mq-10 Thermal Cross-Talk on Light Intensity Modulated Magneto-Optical Overwriting
Miyamoto, H., Toda, T., Ide, H., Saito, A., Andoo, K., Niihara, T. and Ojima, M.
Mq-11 High CNR Achieved on Magneto-Optical Disks using a Plurality of Recording Layers
Lin, C.J.
Mq-12 Magneto-Optical Imaging of Domain Formation in MnBi (AlSi) Thin Films
Kim, W., Kleinefeld, T. and Kleemann, W., Wang, *Y.*
Mq-13 Real Time Simulation on Thermomagnetic Recording - Composition Dependence
Kawazoe, Y., Hu, X., Honma, S., Yorozu, T., Imazu, T. and Ohta, N.
Mq-14 Recording Characteristics of Dy-FeCo Based MO Disks
Raasch, D.
Mq-15 Recording Field Sensitivity of Magneto-Optical Disks using Very Thin Exchange-Coupled Films
Ichitani, K., Tsunashima, S. and Uchiyama, S.
Mq-16 Super Resolution Read-Out of Magneto-Optical Disk with an In-Plane Magnetization Layer
Murakami, Y., Iketani, N., Nakajima, J., Takahasi, A., Ohta, K. and Ishikawa, T.
Mq-17 Switching Field Reduction in MSR Type Magneto-Optical Disks
Ohnuki, S., Shimazaki, K., Ohta, N., Inagoys, O and Sakemoto, A.
Mq-18 The Effect of Laser Pulse Rise and Fall Time on Magneto-Optical Recording
Finkelstein, B. and McDaniel, T.
Mq-19 Write Performance and the Influence of Bias Power
Finkelstein, B, and Wagner, G.
Mq-20 The Scattering of Electric Current on Bubble Magnetic Domains
Gadetsky, S., Stupnov, A., Zumkin, M., Nikolaev, E.
Mq-21 Short-Pulse Laser Writing in Magneto-Optical Recording

Wakabayaashi, H. and Yamada, F.

Mq-22 Giant Magneto-Optical Effect Near Optical Bandgap of Single Crystal EuSe in High Magnetic Fields up to 30T
Yamada, K., Kowata, A., Sakakibara, H., Sato, K., Kato, Y., Maruyama, F, and Kamata, N.

Mq-23 Magneto-Optical Kerr Spectra of Gd/Fe Based Multilayers
Yu, X., Watabe, H., Tsunashima, S. and Uchiyama, S.

Mq-24 Models For Magneto-Optic Kerr Hysteresis Loop of Bilayered Films
Zhu, P., Lee, Z., Liu, X., Xu, Z. and Hu, Y.

Mq-25 Recurrent Photomagnetic Effect of Co Doped Magnetic Garnet Films
Ohmori, K., Itoh, A. and Nakagawa, K.

Mq-26 Substrate Birefringence in Coated Optical Disks
Skumanich, A.

Mq-27 In-Situ Micro-Characterization of Bi-Substituted Garnet Films
Crozier, P. and Labun, P., Suzuki, T.

Mq-28 The Effect of Tilt on Optical Storage System Performance
Finkelstein, B, and Wagner, G.

Mq-29 Magnetic Properties of Migration-Induced Multilayered TbFeCoin Magnetic-Optic Media
Zhou, Y., Bjormander, C. and Rao, K.

Tuesday, December 8,1992

SESSION Ta Domain Dynamics

Ta-1 Computer Simulation for Reverse Domain Formation Process in Magneto-Optical Memory (Invited)
Hasegawa, M., Moroga, K., Okada, M., Okada, O., andHidaka*, Y.,

Ta-2 Computer Simulations of Magnetization Reversal Dynamics (Invited)
Giles, R., Mansuripur, *M.*

Ta-3 Experiments and Simulations on Magnetization Reversal in Magneto-Optic Thin Films (Invited)
Kirby, R., Shen, J. and Sellmyer, D.

SESSION Tb Anisotropy and Coercivity

Tb-1 Coercivity Mechanism in Modern Magnetic Materials (Invited)
Kronmuller H. *(Max-Planck-Instit., Germany)*

Tb-2 Correlation of Magnetic and Structural Anisotropy in Amorphous Tb-Fe Films via EXAFS (Invited)
Harris, V., Elam, W., Koon, N.

Tb-3 Growth-Induced Magnetic Anistropy in Amorphous RE-TM Alloys (Invited)
Hellman F.,

Tb-4 Coercivity Mechanisms in Magneto-Optical Recording Media (Invited)
Fu, H. Giles, R. and Mansuripur, M.

SESSION Tc Large Kerr Effect I

Tc-1 Metastable Films of Giant Magneto-Optic Rotators (Invited)
Gambino R., Fumagalli, P and Ruf, R.

Tc-2 Microstructure and Crystallization Mechanism of Bi-Substituted Garnet Films for M-O Recording Prepared

by Pyrolsis and Sputtering (Invited)
Nakagawa, K. and Itoh, *A*.
Tc-3 Stoichiometry and Crystallization Processes of Sputtered BiGa-DyIG Films (Invited)
Braik, Y, Le Gall, H., Desvignes, J. and Guillot, M,

SESSION Td Large Kerr Effect II

Td-1 PtMnSb Films Prepared by Rapid Thermal Annealing (Invited)
Carey, R., Jenniches, H., Newman, D. and Thomas, B.
Td-2 Magnetic and Magento-Optical Properties of MnBi Films with Additives (Invited)
Wang, Y.J., Lou, C., Qi, X., Huang, D., Kong, L. and Chen, Y.

SESSION Te Blue Recording

Te-1 Short Wave Length MO Record: Noise Issues and Performance Optimazation (Invited)
Hurst, J., Weller, D, and Notarys, H.
Te-2 Blue-Green Laser Diodes for Optical Recording (Invited)
Walker, C, Haase, M., Depuydt, J., Cheng, H. and Qiu, J.

Wednesday, December 9,1992

SESSION Wa Process and Characterization I

Wa-1 Aspects of M-O Media Optimization (Invited)
Treves, D., Rosenblum M.
Wa-2 Archival Life Expectancy of 3M Magneto-Optic Media (Invited)
Murray, W.
Wa-3 High Performance RE-TM Alloy Target for MO Disk Production (Invited)
Maki, K., Morimoto, T., Andoh, I., Endoh, S., Sakkurai*, T., Takagi*, S.

SESSION Wb Process and Characterization II

Wb-1 High Reproducible Production Process for Magneto-Optical Disk by In-Line Sputtering System (Invited)
Im, S., Lee, K., *Ahn,* Y, *and* Jang, *Y*
Wb-2 Evaluation Technology for Mass Production Process of MO Disk (Invited)
Sato, M., *and* Mizutani, *S.*
Wb-3 A New Sputtering Technique for Processing of 2.5" Magneto-Optical Recording Media (Invited)
Brauer, G., Schuller, K., Schulz, S., and Szczybowski, J.
Wb-4 Modern Fabrication Recording Media (Invited)
Strasser, G.

SESSION Wc Marketing and Mini Disc

Wc-1 Application for Magneto Optic Recording Technology (Invited)

Tomita, T.
Wc-2 The Properties of Sony Recordable Minidisc (Invited)
Yoshimura, H., Chibza, T. and Tanaka, T.

PANEL DISCUSSION (DOW) - PANELISTS

Wc-3A Second Generation Magneto-Optical Disk Drive using Magnetic Field Modulation Recording
Murakami, Y., Nakayama, J., Mieda, M., Takahashi, A., Ohta, K. and Ishikawa, T.
WC-3B Direct Overwrite Using Magneto-Statically Coupled Multilayers (Invited)
Ichihara, K. and Kikitsu, A.
Wc-3C Direct Overwrite Magneto-Optical Disk and High Data Density Recording (Invited)
Saito, J., Matsumoto, H., Hosokawa, T. Okamuro, A., Miyata, K., and Akasaka H.
WC-3D Exchange-Coupled Quadrilayer Films for Direct Overwrite MO Disk (Invited)
Tokunaga, T., Nakaki, Y., Fukami, T. and Tsutsumi, K.
WC-3E Double-Capacity Overwritable Magneto-Optical Disk using Magnetic Triple-Layer Film (Invited)
Nakaoki, A,, Arai, M., Owa, H. and Kaneko, M.
Wc-3F Media Side Design consideration for Field Modulation Overwritings (Invited)
Ohnuki, S., Shimazaki, K., and Ohta, N.

CLOSING REMARKS