

TECHNICAL PROGRAM

September 6, 2000 (Wednesday)

Opening and Keynote Session (8:40-9:55)

Presider : T. Ohta (Matsushita, Japan)

M. Takeda (Sony, Japan)

F. Yokogawa (Pioneer, Japan)

Program Committee, Vice-Chairperson

We-A-01 (8:40)

Welcome and Opening Remarks

Y. Okino (Kansai Univ., Japan)

Steering Committee, Chairperson

We-A-02 (8:50)

ISOM 10th Anniversary

Y. Mitsuhashi (JST, Japan)

Organizing Committee, Chairperson

We-A-03 (Keynote)

(9:10) Extending the Capabilities of Storage System

T. Maruyama (Fujitsu, Japan) 2

We-A-04 (Invited)

(9:40) Introduction of CIST

N. Ogata (CIST, Japan)

Coffee Break (9:55-10:10)

High NA (10:10-12:00)

Presiders : H. Sueda (Hitachi, Japan)

I. Ichimura (Sony, Japan)

We-B-01 (Invited)

(10:10) Phase Change Media for High NA and Blue Wavelength Recording

H.J. Borg, M.van Schijndel, M.H.R. Lankhorst, G.F.Zhou, B.A.J. Jacobs,

M.J. Dekker (Philips, Netherlands) 6

We-B-02 (Invited)

(10:40) Multi-Level Tracking for High Density Optical Recording

D.-R. Huang, Z. W. Chao, G. Z. Wu (ITRI, R.O.C.) 8

We-B-03 (Invited)

(11:10) Hybrid Recording with a Sub-Micron Sized Laser Spot

H. Saga, H. Nemoto, Y. Itou*, C. Haginoya, H. Sukeda
(Hitachi, Japan, *Hitachi Metals, Japan) 10

We-B-04

(11:40) An Integrated Magneto-Optical Sliding Head for First Surface

LP-MFM MO-Recording

F.C. Penning, H.W. v. Kesteren, M.A.H. van der Aa, Yu. V. Martynov,
R. J. M. Vullers (Philips, Netherlands) 12

Lunch (12:00-13:20)

High Density Media(13:20-15:20)

Presiders : T. Ohta (Matsushita, Japan)

M. Takeda (Sony, Japan)

We-C-01

(13:20) Rewritable Dual-Layer Phase-Change Optical Disk utilizing Blue-Violet Laser

T. Akiyama, M. Uno, H. Kitaura, K. Narumi, K. Nishiuchi,
N. Yamada (Matsushita, Japan) 16

We-C-02

(13:40) High Density Recording using an Electron Beam Recorder

M. Katsumura, H. Kitahara, M. Ogasawara, Y. Kojima, Y. Wada,
T. Iida, F. Yokogawa (Pioneer, Japan) 18

We-C-03

(14:00) 25Gbyte ROM Disk by Injection Molding

T. Imai, N. Shida, K. Suga, T. Higuchi, T. Iida, F. Yokogawa
(Pioneer, Japan) 20

We-C-04

(14:20) Photoaddressable Polymers for Rewritable Optical Disc Systems

Y. Sabi, M. Yamamoto, H. Watanabe, T. Bieringer*, D. Haarer*,

R. Hagen*, S.G. Kostromine*, H. Berneth*

(Sony, Japan, *Bayer AG, Germany) 22

We-C-05

(14:40) High-Density Rewritable Optical Disk using a Groove Recording

K. Iwata, E. Nakano, A. Hosoda, K. Oishi, K. Ohshima, F. Ito, T. Kondo,

T. Ohgo, E. Nakagawa, A. Hayami, M. Itonaga

(Victor Company of Japan, Japan) 24

We-C-06

(15:00) Acceleration of Crystallization Speed by Sn Addition into Ge-Sb-Te

Phase-Change Recording Material

R. Kojima, N. Yamada (Matsushita, Japan) 26

Coffee Break (15:20-15:35)

Basic Theory(15:35-17:35)

Presiders : J. Tominaga (NAIR, Japan)

T.C. Chong (DSI, Singapore)

We-D-01 (Invited)

(15:35) Near-Field Optical Simulation of Super-RENS Disks

T. Nakano, Y. Yamakawa*, J. Tominaga, and N. Atoda

(NAIR, Japan, *Pioneer, Japan) 30

We-D-02(Invited)

**(16:05) The Mechanism of Near-Field Readout and the Role of Surface Plasmon
in Super-RENS**

D.P. Tsai, S.Y. Lin, S.C. Yang, H.L. Huang, C.R. Chang, W.C. Lin*, F.H. Ho*,

H.J. Huang*, W.Y. Lin*, W.-C. Liu**, T.F. Tseng***, C.H. Li***

(National Taiwan University, R.O.C., *National Chung Cheng University,

**National Taiwan Normal University, R.O.C.,

***Ritek Corporation, R.O.C.) 32

We-D-03

(16:35) Fly Height Margin of Hybrid MO and Near Field Recording

J. Liu, H. Song, B.V.K. V. Kumar, H.-P.D. Shieh* (Carnegie Mellon University,
U.S.A., *National Chiao Tung University, R.O.C.) 34

We-D-04

(16:55) Phase Change Mark Simulator for Ag-InSbTe Recording Material

Y. Nishi, J. Ushiyama, H. Kando, M. Terao (Hitachi, Japan) 36

We-D-05

**(17:15) Signal Simulation of 25GB Read Only Optical Disc System
using a High-NA Objective Lens**

T. Yanagisawa, T. Nomoto, S. Ohsawa (Pioneer, Japan) 38

Basic Experiment(17:35-18:15)

Presiders : J. Tominaga (NAIR, Japan)

T.C. Chong (DSI, Singapore)

We-X-01

(17:35) Thermal Cross-Erase in High Data-Density Phase Change Disks

E.R. Meinders, H.J. Borg, M.J. Dekker (Philips, Netherlands) 42

We-X-02

(17:55) An Implementation of Limited Multi-Level(LML) Optical Recording

G.R. Langereis, W.M.J. Coene, A.M.J. Spruijt (Philips, Netherlands) 44

Banquet (19:00-21:00)