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Invited and Review Papers

1. The Design and Fabrication of Magneto-Optic Recording Materials

Mark H. Kryder — p. 3

2. Materials for Magneto-Optic Data Storage (Invited)

C.-J. Lin — p. 15

3. Thin Film Materials with Enhanced Magneto-Optical Effects

D. Weller and W. Reim — p. 33

Thin-Film Magneto-Optic Materials

Papers in this section cover:

- Rare-earth transition-metal (RE-TM) alloys
- TbFeCo recording films
- GdTbFe and GdCo alloys
- Perpendicular magnetic anisotropy
- Kerr rotation enhancement
- Coercivity control
- Curie and compensation temperatures
- Thin-film microstructure optimization
- Corrosion-resistant recording layers

High-Density Magneto-Optic Recording

4. Materials for High Density Magneto-Optic Data Storage

Richard J. Gambino — p. 83

Topics include:

- Exchange-coupled recording structures
- Multilayer media
- Magneto-optic transducer layers
- Domain size reduction

- Short-wavelength recording systems
- High-density storage architectures

Magneto-Optical Media Structures

Research papers covering:

- Multilayer magneto-optic disks
- Dielectric enhancement layers
- Optical interference structures
- Recording sensitivity optimization
- Reflectivity enhancement
- Signal-to-noise improvement
- Domain wall behavior
- Media design and fabrication techniques

Recording Physics and Performance

Papers addressing:

- Thermomagnetic recording
- Laser writing mechanisms
- Magneto-optic Kerr effect
- Domain formation
- Carrier-to-noise ratio
- Read/write performance
- Recording sensitivity
- Error-rate analysis
- Playback characteristics

Substrates and Reliability

5. High Performance Substrate for Magneto-Optical Disk

Y. Togami — p. 177

Topics include:

- Amorphous polyolefin substrates
- Low birefringence materials
- Water absorption effects
- Mechanical stability
- Disk reliability
- Environmental durability

Fabrication and Manufacturing

6. Magneto-Optical Recording Performance and Fabrication Conditions in Magneto-Optical Recording Disks

Takehiko Yorozu, Takashi Satoh, Yukinobu Yoneyama, Hiroyuki Tanaka, Yuji Takatsuka

Additional papers discuss:

- RF sputtering
- DC magnetron sputtering
- Process optimization
- Deposition conditions
- Industrial manufacturing methods
- Quality control of recording media

Additional Contributed Papers

The remainder of the volume contains contributed papers on:

- Magneto-optic recording media
- Rare-earth transition-metal alloys
- Thin-film deposition processes
- Exchange-coupled magnetic layers
- Kerr-effect enhancement
- Optical disk structures
- Corrosion protection
- Dielectric coatings
- Magnetic anisotropy engineering
- High-density recording media
- Magneto-optical disk reliability
- Recording-domain dynamics
- Materials characterization techniques
- Advanced optical storage technologies

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