



US005526338A

United States Patent [19]

[11] Patent Number: **5,526,338**

Hasman et al.

[45] Date of Patent: **Jun. 11, 1996**

[54] METHOD AND APPARATUS FOR STORAGE AND RETRIEVAL WITH MULTILAYER OPTICAL DISKS

[75] Inventors: **Erez Hasman, Kiron; Asher A. Frieseem, Rehovot, both of Israel**

[73] Assignee: **Yeda Research & Development Co. Ltd., Rehovot, Israel**

[21] Appl. No.: **402,227**

[22] Filed: **Mar. 10, 1995**

[51] Int. Cl.⁶ **G11B 7/00**

[52] U.S. Cl. **369/109; 369/94; 369/102; 369/112; 369/275.1; 369/44.23**

[58] Field of Search **369/44.23, 109, 369/102, 94, 103, 99, 112, 116, 275.1, 275.3, 275.4; 365/124, 125**

[56] References Cited

U.S. PATENT DOCUMENTS

5,202,875	4/1993	Rosen et al.	369/94
5,251,198	10/1993	Strickler	369/94
5,255,262	10/1993	Best et al.	369/275.1
5,373,499	12/1994	Irmaino et al.	369/275.4
5,381,401	1/1995	Best et al.	369/275.1
5,408,453	4/1995	Holtslag et al.	369/44.23

OTHER PUBLICATIONS

Computer-Originated Aspheric Holographic Optical Elements—R. C. Fairchild et al, Opt. Eng. vol. 21 No. 1 (1982) pp. 133–140.

Depth Response of Conlocal Optical Microscopes—T. R. Corle, et al., Opt. Letters, vol. 11, No. 12 (1986) pp. 770–772.

Design of Wave Length-Division . . . , Y. Amitai Opt. Comm. (1993) pp. 24–28.

Analytic Design of Hybrid Diffractive—Refractive Achromats—N. Davidson et al, Appl. Opt. vol. 32, No. 25 pp. 4770–4774.

Efficient Multilevel Phase Holograms For CO₂ Lasers—E. Hasman, et al. Opt. Soc. Am.—Optics Letters (1991) pp. 423–425.

MultiFunctional Holographic Elements For Surface Meas.—E. Hasman, et al. Opt. Eng. vol. 31, No. 2, (1992) pp. 363–368.

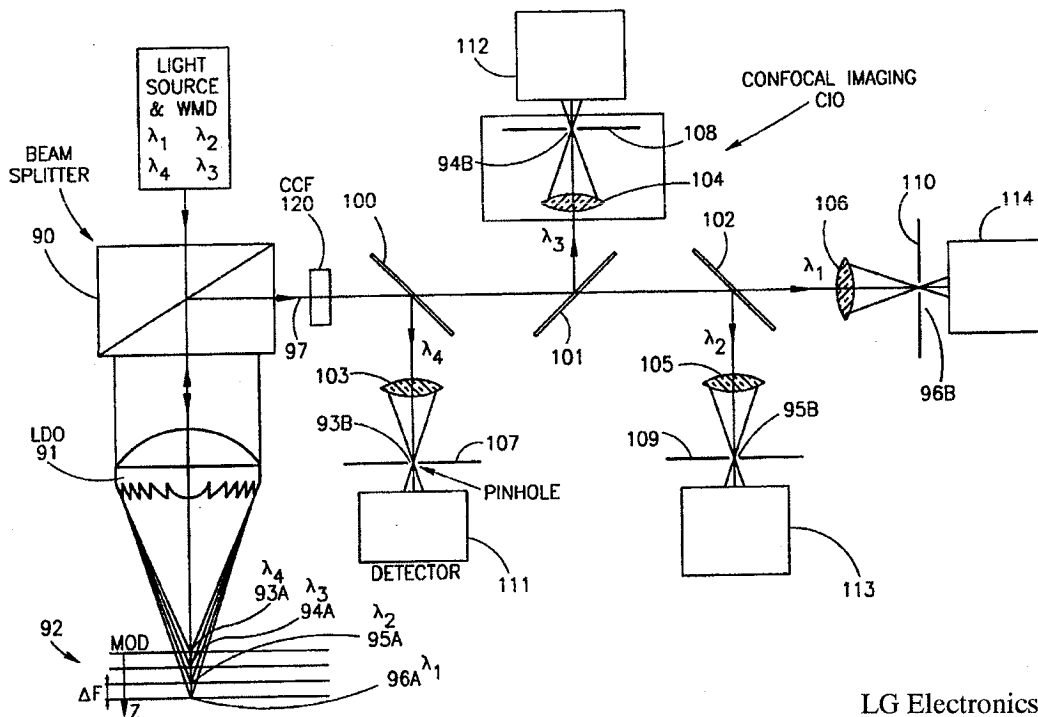
Primary Examiner—Loha Ben

Attorney, Agent, or Firm—Mark M. Friedman

[57] ABSTRACT

A multilayer optical disk system, which includes an optical disk unit having a number of connected optical disks. A number of light sources, such as diode lasers, are used to provide a number of light beams of different wavelengths. A wavelength multiplexer combines the light beams into a single beam which is then axially dispersed so that light of different wavelengths are simultaneously focuses onto the different optical disks. A wavelength demultiplexer splits light reflected from the optical disks according to wavelength to produce separate beams which are then separately detected.

35 Claims, 8 Drawing Sheets



LG Electronics, Inc. et al.
EXHIBIT 1007

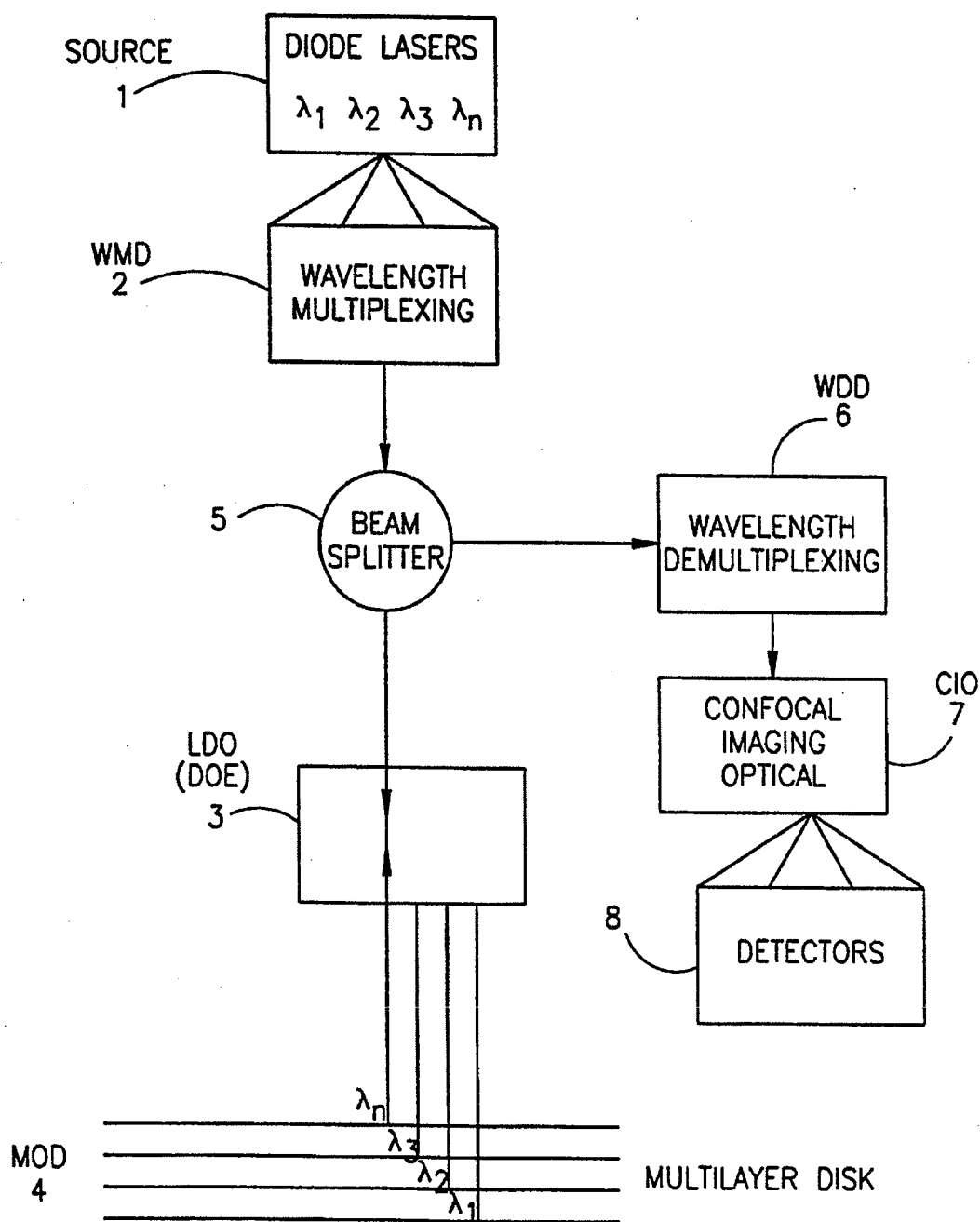


FIG. 1

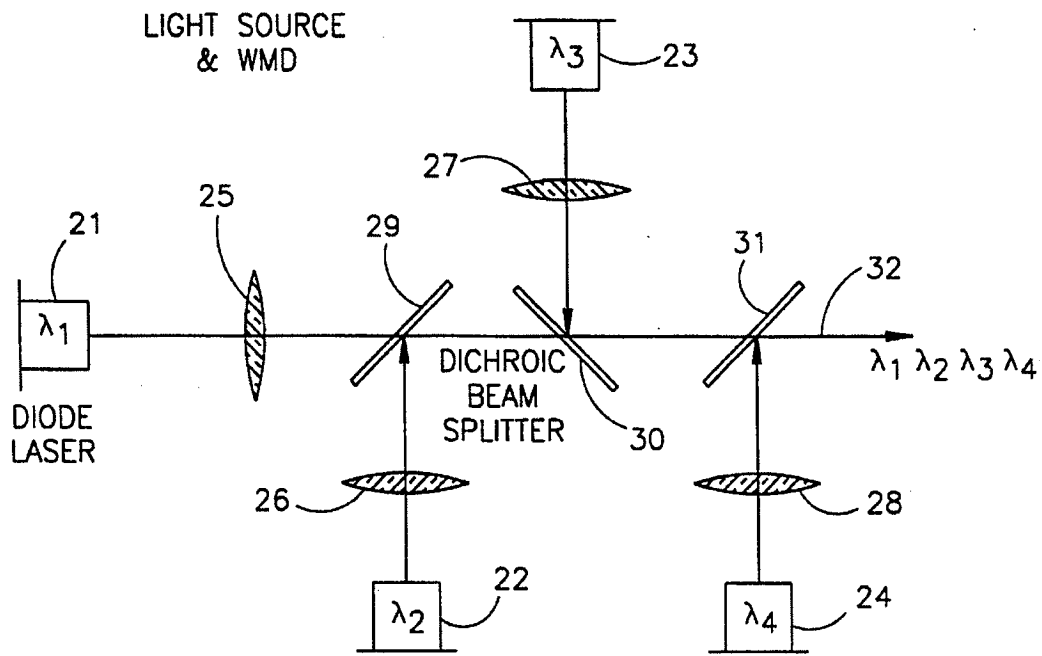


FIG. 2

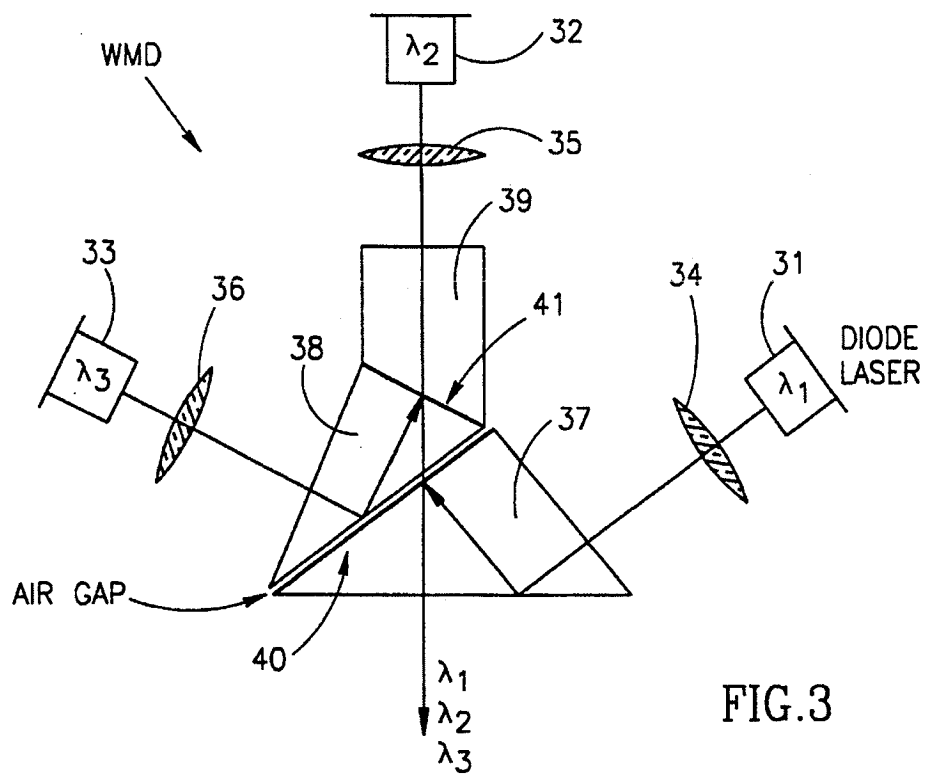


FIG. 3

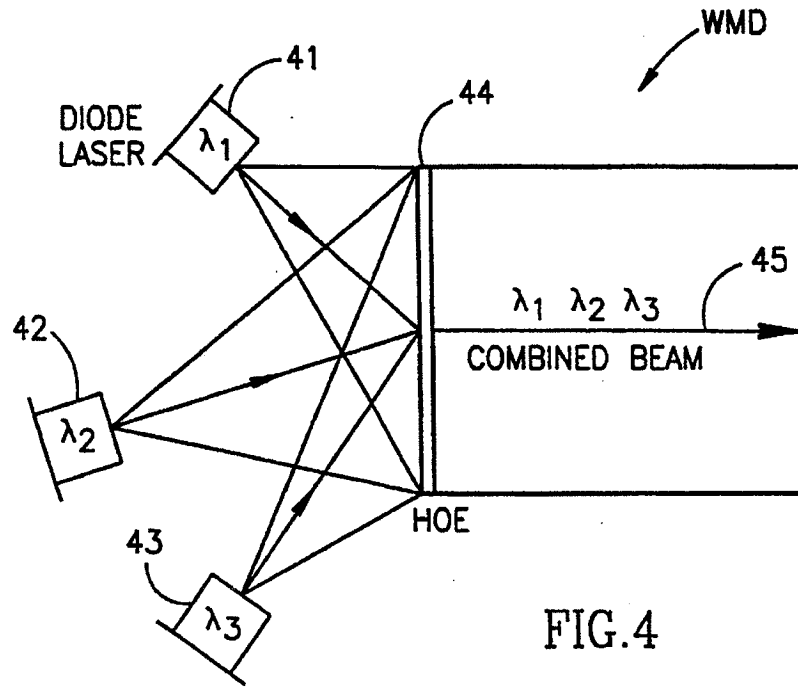


FIG.4

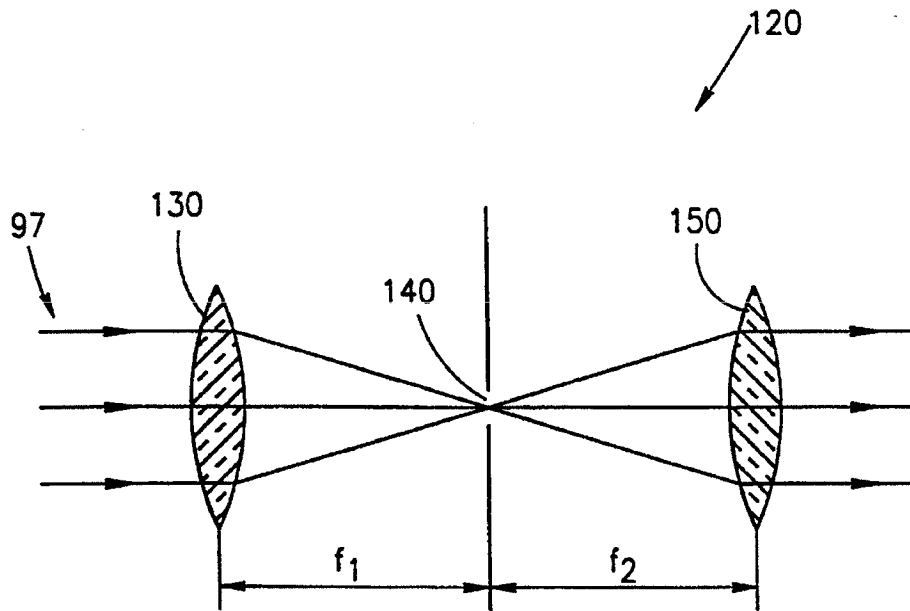


FIG.9B

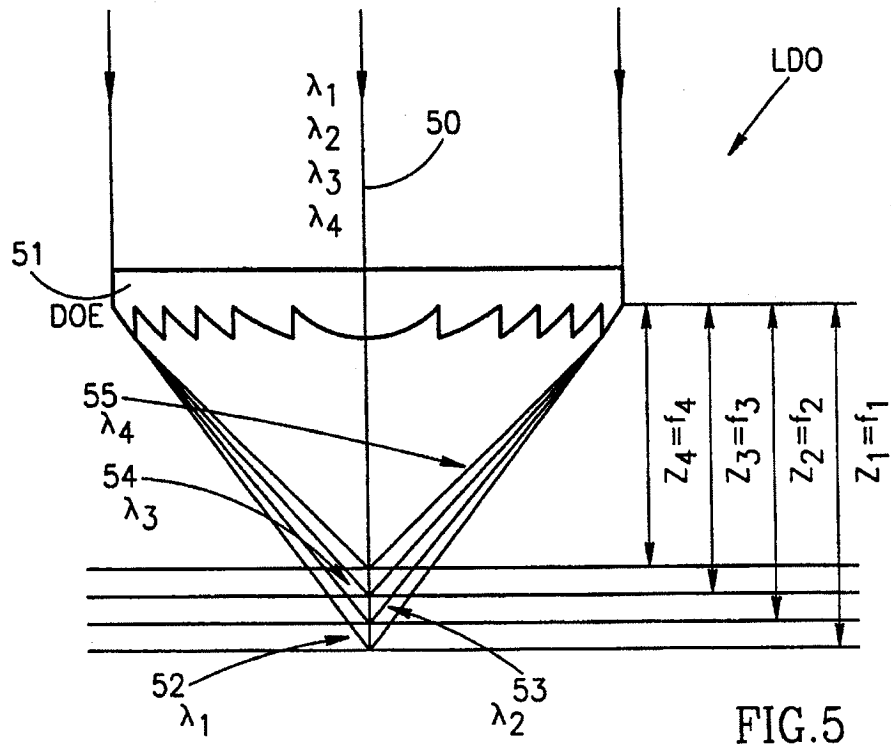


FIG. 5

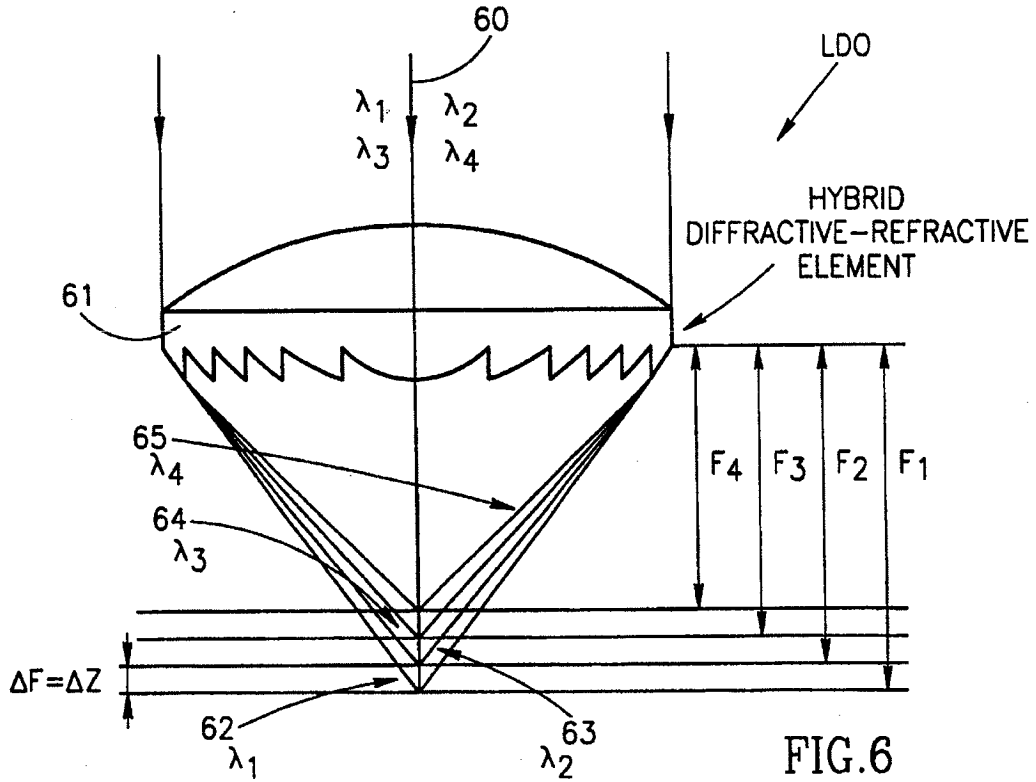


FIG. 6

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.