2000054908-9

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WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G11B 7/135

A1

(11) International Publication Number: WO 99/50841

(43) International Publication Date: 7 October 1999 (07.10.99)

(21) International Application Number: PCT/US99/06449

(22) International Filing Date: 26 March 1999 (26.03.99)

(30) Priority Data:

60/079,903	30 March 1998 (30.03.98)	US
60/081,227	9 April 1998 (09.04.98)	US
60/088,192	5 June 1998 (05.06.98)	US
60/108,398	13 November 1998 (13.11.98)	US
60/111,470	9 December 1998 (09.12.98)	US
09/276,082	25 March 1999 (25.03.99)	US

(81) Designated States: CN, JP, KR, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

With international search report.

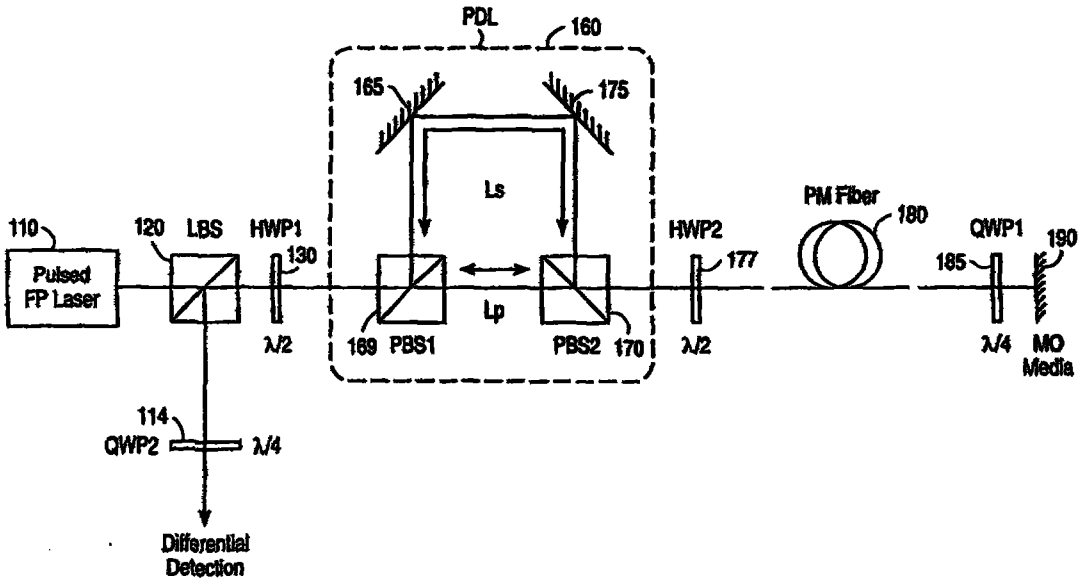
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

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(54) Title: LOW NOISE OPTICAL STORAGE SYSTEM BASED ON AN OPTICAL POLARIMETRIC DELAY LINE



(57) Abstract

A system and method for achieving, while using a multimode diode laser and polarization–maintaining fibers, high signal–to–noise ratio in a magneto optical storage system. In particular, the system splits an incoming main light signal into two orthogonal polarization states, which then propagate over different distances before recombining. By pulsing the laser on and off at a high frequency and choosing an appropriate path difference for the polarization states, which is dependent upon the modulation frequency of the laser, the system eliminates first–order spectral polarization noise arising from a potential error in a key optical component.