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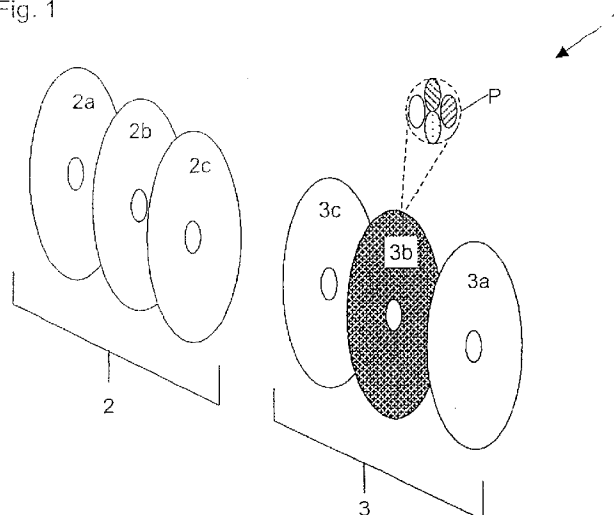
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(54) Title: LASER REACTIVE MEDIA AND APPARATUS AND METHOD FOR WRITING AN IMAGE ONTO SUCH MEDIA

Fig. 1



(57) Abstract: An optical disk label writing method for writing a label on an optical disc uses a similar writing operation to that used to write data to the disc. The disc has a label side including a laser reactive material for forming the label image, and a tracking format that can be tracked by a writing laser in a similar way to a writing operation. A computer program is provided for converting a label image to a disk image file for writing to the label side.

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2008/001814

A. CLASSIFICATION OF SUBJECT MATTER
INV. G11B23/40 G11B7/125

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G11B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/179679 A1 (MORISHIMA MORITO [JP]) 25 September 2003 (2003-09-25) paragraphs [0168] - [0171], [0189] - [0198]; figures 3,5,6,15-19 -----	1,7-11, 14-19, 22,23, 50,51, 58-72
X	US 2006/228515 A1 (KWASNY DAVID M [US] ET AL) 12 October 2006 (2006-10-12) paragraphs [0010], [0027] -----	1,10,17
X	WO 2004/109696 A (YAMAMOTO KAZUHIRO [JP]) 16 December 2004 (2004-12-16) the whole document ----- -/--	1,10,17

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

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P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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* & * document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2008/001814

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2006/129231 A (ARIMA DEVICES CORP; VREHEN JORIS J [NL]) 7 December 2006 (2006-12-07) page 15, lines 19-34 -----	1,10,17
A	US 2006/132585 A1 (VAN BROCKLIN ANDREW L [US] ET AL) 22 June 2006 (2006-06-22) the whole document -----	1,10,17, 50,60

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2008/001814

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see additional sheet(s)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4,7-19,22,23,50,51,58-72

writing an image to a laser reactive medium, with laser light that is generated by heterodyning light of two other discrete frequencies

2. claims: 5,6,20,21

writing an image to a laser reactive medium, whereby the reaction of the laser reactive image medium on the laser illumination is monitored

3. claims: 52-57

a laser reactive medium with a label side having an array of pixels

4. claims: 24-49

writing an image to a laser reactive medium by vaporising portions of the medium

5. claims: 73-82

writing an image to a laser reactive medium by emitting simultaneously two beams of laser light

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2008/001814

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2003179679	A1	25-09-2003	JP	3873784 B2		24-01-2007
			JP	2003272240 A		26-09-2003
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			WO	2006069043 A1		29-06-2006