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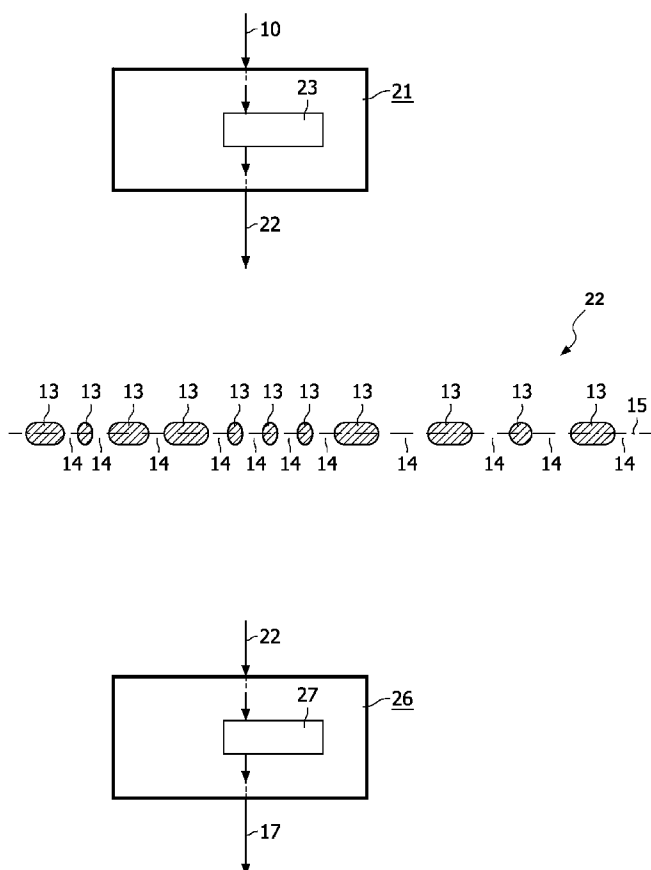
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[Continued on next page]

(54) **Title:** METHOD FOR RECORDING DATA HAVING A DISTINCTIVE FEATURE



(57) **Abstract:** In the field of content distribution a typical problem is the protection of Digital Rights information (DRM), which is appended to the content and recorded on a record carrier in the form of a corresponding recorded pattern, from tampering by malicious users. According to some known schemes, the protection is implemented by linking the DRM to some physical distinctive feature of the corresponding recorded pattern. From this distinctive feature fingerprint data can be extracted with some conventional method, and used for the authentication of the DRM. The invention proposes a method of recording data wherein variations in the density of the recorded pattern are formed, as result of a perturbation in the recording process, which is a non-controllable substantially random process.



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A. CLASSIFICATION OF SUBJECT MATTER

INV. G11B20/00 G11B23/28 G11B19/12

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B. FIELDS SEARCHED

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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 , wpi Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
P, X	EP 1 672 631 A (SONY DADC AUSTRIA AG [AT]) 21 June 2006 (2006-06-21) the whole document -----	1-15
X	WO 03/015088 A (DURAND TECHNOLOGY LTD [GB]; BLACKLEDGE JONATHAN MICHAEL [GB]; W N H JO) 20 February 2003 (2003-02-20) the whole document -----	1-15
A	WO 03/054878 A (SONY DADC AUSTRIA AG [AT]; BLAU KOVITSCH REINHARD [AT]; WINTER ANDREAS) 3 July 2003 (2003-07-03) abstract page 17, line 1 - page 19, line 26 figures 7-10 ----- -/-	1-15



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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 03/019552 A1 (BRAINSHIELD TECHNOLOGIES INC [US]; WITTKOETTER ERLAND [DE]) 6 March 2003 (2003-03-06) the whole document -----	1-15
A	WO 2005/055227 A (KONINKL PHILIPS ELECTRONICS NV [NL]; TALSTRA JOHAN C [NL]; AKKERMANS A) 16 June 2005 (2005-06-16) the whole document -----	1-15
A	WO 99/44196 A (DOUG CARSON & ASSOCIATES INC [US]) 2 September 1999 (1999-09-02) abstract page 8 , line 17 - page 11, line 27 figure 2 -----	

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2006/054711

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1672631	A	21-06-2006	CN 1822180 A JP 2006179166 A US 2006153052 A1	23-08-2006 06-07-2006 13-07-2006
WO 03015088	A	20-02-2003	NONE	
WO 03054878	A	03-07-2003	AU 2002360058 A1 CN 1606778 A JP 2005513707 T US 2005063255 A1	09-07-2003 13-04-2005 12-05-2005 24-03-2005
WO 03019552	A1	06-03-2003	DE 10140237 A1 US 2005027996 A1	27-03-2003 03-02-2005
WO 2005055227	A	16-06-2005	CN 1890737 A JP 2007513451 T KR 20060115888 A	03-01-2007 24-05-2007 10-11-2006
WO 9944196	A	02-09-1999	EP 1064649 A1 JP 2002505495 T US 2001055258 A1	03-01-2001 19-02-2002 27-12-2001