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- (81) **Designated States (unless otherwise indicated, for every
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AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD,
SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
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ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

- Published:**
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claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))
- (88) **Date of publication of the international search report:**
3 March 2011

(54) **Title:** GENERATIVE AUDIO MATCHING GAME SYSTEM

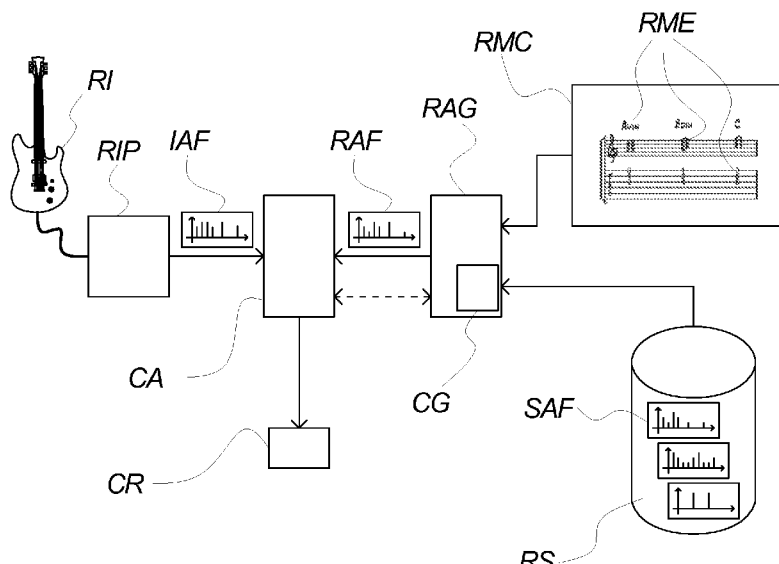


Fig. 2

(57) **Abstract:** The invention relates to an audio matching method, use of the method in a game system, an audio matching system and a data carrier, where the audio matching method is for comparing an input audio fragment derived from a real instrument with one or more reference audio fragments, the method comprising the steps of: obtaining said one or more reference audio fragments on the basis of a reference music context and one or more stored audio fragments from a reference storage, comparing said input audio fragment against said one or more reference audio fragments to determine a comparison result, and providing a representation of said comparison result to a user.

WO 2010/142297 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/DK2010/050132

A. CLASSIFICATION OF SUBJECT MATTER		
INV. G10H1/00	G10H1/38	G09B15/00
ADD.		
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) G10H G09B A63F		
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	WO 02/47064 A1 (AMUSETEC CO. LTD) 13 June 2002 (2002-06-13)	1-6, 10, 13-17, 20, 21
Y	pages 20-27; figures 8, 11-11D, 15	11
A	page 40, lines 21-26	12
X	US 5 210 366 A (SYKES JR RICHARD O [US]) 11 May 1993 (1993-05-11)	1, 3, 5, 6, 14, 20, 21
Y	column 7, line 41 - column 10, line 62;	11
A	figures 5-7	12
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "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 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
20 December 2010		10/01/2011
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Feron, Marc

6.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK2010/050132

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 all searchable 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 report covers only those claims for which fees were paid, specifically claims Nos.:

1-6, 10-17, 20, 21
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.:

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.

INTERNATIONAL SEARCH REPORT

International application No

PCT/DK2010/050132

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FUJISHIMA T: "REALTIME CHORD RECOGNITION OF MUSICAL SOUND: A SYSTEM USING COMMON LISP MUSIC", ICMC. INTERNATIONAL COMPUTER MUSIC CONFERENCE. PROCEEDINGS, XX, XX, 27 September 1999 (1999-09-27), pages 464-467, XP009053025, paragraph [002.] - paragraph [02.3]; figure 2	1-6, 10-17, 20,21
A	----- KLAPURI A ET AL: "ROBUST MULTIPITCH ESTIMATION FOR THE ANALYSIS AND MANIPULATION OF POLYPHONIC MUSICAL SIGNALS", PROCEEDINGS COST-G6 CONFERENCE ON DIGITAL AUDIO EFFECTS, DAFX-00, VERONA, ITALY,, 7 December 2000 (2000-12-07), pages 1-6, XP002517232, paragraph [02.2]; figure 1	1-6, 10-17, 20,21
A	----- US 6 060 655 A (MINAMITAKA JUNICHI [JP]) 9 May 2000 (2000-05-09) * abstract; figures 5-7,11	11,12
A	----- US 2004/003707 A1 (MAZZONI STEPHEN M [US]) 8 January 2004 (2004-01-08) * abstract; figures 3-7,19	11,12

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/DK2010/050132

Patent document cited in search report	Publication date	Patent family member(s)	Publication date																					
WO 0247064	A1	13-06-2002	<table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">AU</td> <td style="width: 35%;">2118102 A</td> <td style="width: 50%;">18-06-2002</td> </tr> <tr> <td>CN</td> <td>1479916 A</td> <td>03-03-2004</td> </tr> <tr> <td>EP</td> <td>1340219 A1</td> <td>03-09-2003</td> </tr> <tr> <td>JP</td> <td>3907587 B2</td> <td>18-04-2007</td> </tr> <tr> <td>JP</td> <td>2004515808 T</td> <td>27-05-2004</td> </tr> <tr> <td>KR</td> <td>20020044081 A</td> <td>14-06-2002</td> </tr> <tr> <td>US</td> <td>2004044487 A1</td> <td>04-03-2004</td> </tr> </table>	AU	2118102 A	18-06-2002	CN	1479916 A	03-03-2004	EP	1340219 A1	03-09-2003	JP	3907587 B2	18-04-2007	JP	2004515808 T	27-05-2004	KR	20020044081 A	14-06-2002	US	2004044487 A1	04-03-2004
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CN	1479916 A	03-03-2004																						
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JP	2004515808 T	27-05-2004																						
KR	20020044081 A	14-06-2002																						
US	2004044487 A1	04-03-2004																						

US 5210366	A	11-05-1993	NONE																					

US 6060655	A	09-05-2000	JP 11327558 A 26-11-1999																					

US 2004003707	A1	08-01-2004	NONE																					

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-6, 10, 13-17, 20, 21

Identification of expected chords in the playing of a symbolic representation of a piece of music, based on knowledge of said symbolic representation

2. claims: 7, 8, 18, 19

plain audio similarity evaluation without musical evaluation like chord identification

3. claim: 9

Score page turner with variable rate of page turning according to detected music

4. claims: 11, 12

Identification/suggestion of chord variations on a known score
