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(71) Applicant: **WHIRLPOOL CORPORATION**
Benton Harbor Michigan 49022 (US)

(72) Inventor: **Jung, Clemens**
V.Le G. Borghi 27, 21025 Comerio (IT)

(74) Representative: **Guerici, Alessandro**
Whirlpool Europe S.r.l.
Patent Department
Viale G. Borghi 27
21025 Comerio (VA) (IT)

(54) **Method to supply clear rinse in a dishwasher**

(57) The invention concerns a method for the dosed supply of clear rinse to the clear rinse bath in the tub of a dishwasher during the clear rinse cycle, whereby an optical sensor monitors the foam concentration of the clear rinse bath. An overdose of clear rinse is avoided during the clear rinse cycle according to the invention in that a setpoint is given for the foam concentration in the clear rinse bath for the dosed supply of clear rinse,

whereby the actual value of the foam concentration in the clear rinse bath measured by the optical sensor during the clear rinse cycle is compared with the given setpoint, and whereby clear rinse is supplied to the clear rinse bath continuously or at intervals until the measured actual value corresponds to the given setpoint.

EP 1 188 409 A3



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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	EP 1 029 962 A (ESSWEIN SA) 23 August 2000 (2000-08-23) * column 1, line 7 - line 36 * * column 3, line 29 - column 4, line 17 *	1,2	A47L15/46 A47L15/00
Y	EP 0 972 487 A (WHIRLPOOL CO) 19 January 2000 (2000-01-19) * column 1, line 52 - column 2, line 5 * * column 4, line 6 - line 10 *	1,2	
A	EP 0 842 614 A (SAMSUNG ELECTRONICS CO LTD) 20 May 1998 (1998-05-20) * column 4, line 12 - line 20; figures 2,3 *	1	
A	US 5 443 655 A (STOVER KEVIN L ET AL) 22 August 1995 (1995-08-22) * column 2, line 9 - line 22 *	1	
A	EP 1 008 324 A (WHIRLPOOL CO) 14 June 2000 (2000-06-14) * column 3, line 2 - line 13 *	1	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
A	WO 98 51205 A (SCHROTT HARALD ;AWECO KUNSTSTOFFTECH GERAETE (DE)) 19 November 1998 (1998-11-19) * claim 1 *	3	A47L
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 5 February 2003	Examiner Papadimitriou, S
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 11 8818

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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05-02-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 1029962	A	23-08-2000	FR	2789568 A1	18-08-2000
			EP	1029962 A1	23-08-2000
EP 0972487	A	19-01-2000	DE	19831687 A1	20-01-2000
			EP	0972487 A1	19-01-2000
EP 0842614	A	20-05-1998	KR	176685 B1	01-10-1999
			CN	1190570 A	19-08-1998
			EP	0842614 A2	20-05-1998
			JP	10155724 A	16-06-1998
			US	5858116 A	12-01-1999
US 5443655	A	22-08-1995	AU	680336 B2	24-07-1997
			AU	1505195 A	26-10-1995
			BR	9501526 A	14-11-1995
			CA	2146531 A1	14-10-1995
			EP	0677271 A2	18-10-1995
			JP	7322998 A	12-12-1995
			NZ	270780 A	26-03-1996
EP 1008324	A	14-06-2000	DE	19857413 A1	21-06-2000
			EP	1008324 A1	14-06-2000
WO 9851205	A	19-11-1998	DE	19720820 A1	19-11-1998
			WO	9851205 A2	19-11-1998
			DE	59801259 D1	27-09-2001
			EP	0981291 A2	01-03-2000
			US	6338351 B1	15-01-2002