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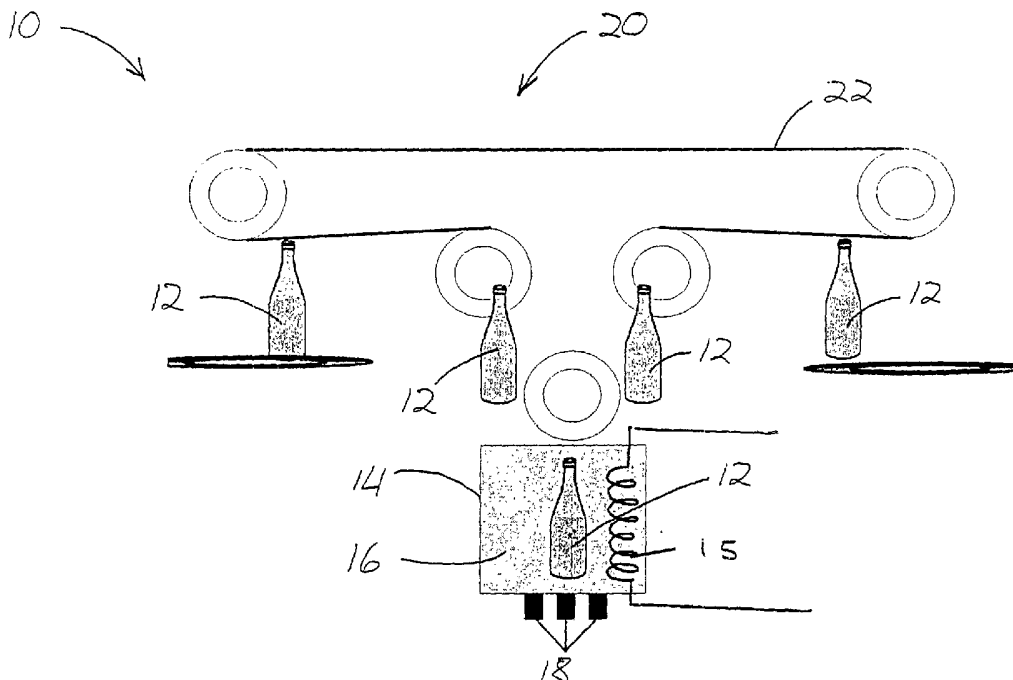
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(54) Title: TREATMENT OF A PRODUCT TO REDUCE PHENOLIC BITTERNESS



(57) Abstract: A process is disclosed for treating a product, which will usually be wine, which suffers from phenolic bitterness. The method consists of treating the product with an ultrasonic waveform, the waveform having a frequency of between 100 kHz and 1000 kHz and an intensity of between 1,2 W/cm squared and 100 W/cm squared. Preferably the energy dose is between 1000 and 100000 Watt seconds per litre.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C12H1/16

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)
 IPC 7 C12H

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)

WPI Data, EPO-Internal, PAJ, FSTA, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE WPI Section Ch, Week 198419 Derwent Publications Ltd., London, GB; Class D16, AN 1984-119220 XP002211703 & SU 1 033 537 A (GEOR ORCHARD VINEYA), 7 August 1983 (1983-08-07)	1-6, 8, 9
A	abstract	7, 10
X	CH 339 602 A (POINSARD ROBERT GASTON) 15 July 1959 (1959-07-15) page 2, column 2, line 26-31; example 1	1, 6, 8
X	DE 198 59 558 C (ECKES AG) 16 March 2000 (2000-03-16)	8-10
A	claims 1-4	1-7
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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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	EP 0 860 498 A (KYOWA INTERFACE SCIENCE CO LTD) 26 August 1998 (1998-08-26) claims 1,3,4 ---	1-10
A	DE 29 02 114 A (HALLE RATIONALISIERUNG VEB) 2 August 1979 (1979-08-02) claim 1 ----	1-10
A	FR 1 022 049 A (SIEMENS AG) 26 February 1953 (1953-02-26) the whole document -----	1-10

INTERNATIONAL SEARCH REPORT
Information on patent family members

International Application No
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
SU 1033537	A	07-08-1983	SU 1033537 A1	07-08-1983
CH 339602	A	15-07-1959	NONE	
DE 19859558	C	16-03-2000	DE 19859558 C1 EP 1013755 A2	16-03-2000 28-06-2000
EP 0860498	A	26-08-1998	EP 0860498 A1 WO 9745526 A1	26-08-1998 04-12-1997
DE 2902114	A	02-08-1979	DD 134779 A1 DE 2902114 A1 ES 477330 A1 FR 2416265 A1 IT 1164660 B JP 54119098 A RO 76515 A1 SU 966114 A1 US 4210676 A	21-03-1979 02-08-1979 01-07-1979 31-08-1979 15-04-1987 14-09-1979 04-11-1981 15-10-1982 01-07-1980
FR 1022049	A	26-02-1953	NONE	