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(71) Applicant: **CONSEJO SUPERIOR DE**

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**28006 Madrid (ES)**

(72) Inventors:

- **Espin de Gea, Juan Carlos Ctro. E. y B.A. del Seg.  
30080 Murcia (ES)**

• **De Tomas Barberan, Francisco A.**

**C.E.y B.A.del Seg.**

**30080 Murcia (ES)**

• **Garcia Viguera, Maria C. Ctro. E. y B.A. del Seg.**

**30080 Murcia (ES)**

• **Ferreres de Arce, Federico Ctro. E. y B.A. del Seg**

**300080 Murcia (ES)**

• **Soler Rivas, Cristina**

**6700 Wageningen (NL)**

• **Wichers, Harry J.**

**6700 Wageningen (NL)**

(74) Representative: **Ungria Lopez, Javier et al**

**Avda. Ramon y Cajal, 78**

**28043 Madrid (ES)**

(54) **ENZYMATIC SYNTHESIS OF ANTIOXIDANT HYDROXYTYROSOL**

(57) The reaction occurs in a medium buffered with phosphate in an aqueous medium, at neutral pH and at room temperature. Hence, the reaction medium consists of: tyrosol, as precursor; (commercial) mushroom tyrosinase to catalyze the process and vitamin C in excess. Reaction starts after initial shaking. The reaction stops when the concentration of the initial tyrosol is exhausted. In order for the reaction to continue, it will suffice to add more tyrosol (always ensuring that the vita-

min C/tyrosol ratio is more than 1). Once the desired concentration of hydroxytyrosol is obtained, it is filtered. The enzyme with molecular weight over twice the size of the pore is retained in the filter and can be used once again. This first extract, which is very enriched in antioxidant hydroxytyrosol with a high antioxidant capacity (in the present case, in combination with vitamin C), can already be used as a food additive.

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## INTERNATIONAL SEARCH REPORT

International application No. .

PCT/ES 01/314

A. CLASSIFICATION OF SUBJECT MATTER		
IPC 7 C12P 7/22, A23L 1/30		
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 C12P, A23L		
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 practicable, search terms used)		
CIBEPAT, EPODOC, WPI, HCAPLUS, FSTA		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	ESPIN, J.C., ET AL., "SYNTHESIS OF THE ANTIOXIDANT HYDROXYTYROSOL USING TYROSINASE AS BIOCATALYST"; J.AGRIC.FOOD CHEM. 2001; VOL 49; N°3, PAG.1187-1193	1-5
X	W00036936A1 (BOOM et al.) 29.06.00	5
A	CAPPASSO, R., et al, "A HIGHLY CONVENIENT SYNTHESIS OF HYDROXYTYROSOL AND ITS RECOVERY FROM AGRICULTURAL WASTE WATERS", J.AGRIC.FOOD CHEM.1999; VOL,47; N° 4 ; PAG.1745-1748	
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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