Title (en)

CHEMICAL-CATALYTIC METHOD FOR THE PERACYLATION OF OLEUROPEIN AND ITS PRODUCTS OF HYDROLYSIS

Title (de)

CHEMISCH-KATALYTISCHES VERFAHREN ZUR PERACETYLIERUNG VON OLEUROPEIN UND SEINE HYDROLYSEPRODUKTE

Title (fr)

PROCÉDÉ CHIMICO-CATALYTIQUE POUR LA PÉRACYLATION DE L'OLÉUROPÉINE ET DE SES PRODUITS D'HYDROLYSE

Publication

EP 2235032 A2 20101006 (EN)

Application

EP 08763854 A 20080505

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Abstract (en)

[origin: WO2008136037A2] The method, object of the present invention, concerns the peracylation of oleuropein and its products of hydrolysis: The method makes use of the excellent properties as Lewis acid catalysts of halides and tryphilates of lanthanides (III). The component is placed to react, in the presence of catalytic quantities of Lewis acid, directly with an acylating agent containing at least one acylic group R, where R is H, an alkylic radical of 1-31 atoms of linear or branched carbon, an alkenylic radical containing up to 31 atoms of carbon or an arylic group. The procedures for the extraction and the successive hydrolysis of the oleuropein for the synthesis of its aglycon and the hydroxytyrosol, resolve the problems tied to the quantitative yield of the products and to the use of highly-toxic and expensive catalysts. Furthermore, the innovative and inventive contribution is given by the peracylation of the oleuropein and its products of synthesis, aglycon and hydroxytyrosol, that supply a new class of molecule, biologically active as anti-oxidants and anti-inflammatory ones. The proven anti-oxidant activity of oleuropein and its derivates leads to the hypothesis that they could also act as protectors against oxidative stress at the level of the central nervous system, one of the causal factors of Parkinson's disease. The molecules examined are all good protectors against oxidative stress and the greater efficiency of the peracylated derivatives is presumably due to their greater lipophilicity and the possibility of penetrating the cellular membrane.

IPC 8 full level

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