

New Method for Isolation and Determination of Oleocanthal as carboxylic ester INTRODUCTION

Abstract

A very newly method was described for the Identification and determination of [2-(4-hydroxyphenyl) ethyl (3S, 4E)-4-formyl-3-(2-oxoethyl) hex-4-enoate]. Oleocanthal (OLC) as Water Soluble carboxylic ester. The method extracted it from virgin olive fruits by two main steps with separator funnel, the first step by mix solvent Ethanol: Chloroform: Water (40:40:10) and the second step by mix solvent Ethyl acetate: Water (50:50). The Specific estimates of Oleocanthal with the mixture solvent Acetonitrile: Toluene: Formic acid: Water (4:2:0.5:0.5) was determined by TLC chromatography. The method isolated and purified Oleocanthal by extracted from olive fruits with methanol/water (80/20, v/v) using a modification of an existing procedure. To obtain one pure material Oleocanthal was used spectrophotometric IC-UV method in max. wavelength at 278 nm with C18 solid phase column (250mm×4.6mm ID , 5µm) is used for Quantification of Oleocanthal , One peak refers to only one compound in extraction ; Also to Identification of only one extracted compound Via Gas Chromatography-mass spectrometry (MSDCHEM\1\METHODS\MUAFAQ.M) , Oleocanthal is further identified. All methods in procedure have been successfully applied to the determination and identification of Oleocanthal.