

Full Research Paper

Combustion Analysis of Different Olive Residues

Teresa Miranda ^{1,*}, Alberto Esteban ², Sebastián Rojas ¹, Irene Montero ¹ and Antonio Ruiz ¹

1 Department of Mechanical, Energetic and Materials Engineering, Industrial Engineering School, University of Extremadura, Avda. Elvas s/n, 06071 Badajoz, Spain. Tel.: +34 924289600, Fax: +34 924289601.

2 Department of Energy, CIEMAT, Avda. Complutense, 22, Madrid 28040, Spain. Tel.: +34 913466701; Fax: +34 913466269

E-mails: tmiranda@unex.es (T.M.); a.esteban@ciemat.es (A.E.); srojas@unex.es (S.R.); imontero@unex.es (I.M.); aruiz@unex.es (A.R.)

* Author to whom correspondence should be addressed. E-Mail: tmiranda@unex.es

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Abstract: The Thermogravimetric Analysis (TGA) techniques and concretely the study of the burning profile provide information that can be used to estimate the behaviour of the combustion of carbonous materials. Commonly, these techniques have been used for the study of carbons, but are also interesting for the analysis of biomass wastes, due to the different species present on the wastes affect directly to its thermal properties. In this work, techniques of thermal analysis have been applied to compare the behaviour of different wastes coming from olive oil mills. From these results, it is remarkable that the Concentrated Olive Mill Waste Water (COMWW) presents more unfavourable conditions for its combustion.

Keywords: reactivity; biomass; TGA.

1. Introduction

Nowadays, the thermochemical processes such as pyrolysis, gasification and combustion are the most attractive and practical as far as the energy recovery from the biomass is concerned [1], being the combustion responsible for about a 97 % of the production of bioenergy in the world [2]. In Spain, the

