



Programme

Tuesday, 28 May 2019

Room: POSTER AREA

13:30 - 15:00

Session code: 2BV.4

Combustion, CHP and emission control technologies from small to large scale systems

Chairpersons:

Marco BARATIERI, Free University of Bolzano, Faculty of Science and Technology, ITALY
 Neuza ALVES, CBE - Centro da Biomassa para a Energia, LEBS, PORTUGAL

**Short introductive
summary:**

Statistical Analysis of Vegetables Oils Combustion in a Low-Pressure Auxiliary Air Fluid Pulverization Burner, in Order to Establish Optimal Operating Conditions.

The use of vegetables oils as fuels with heating purposes, in conventional burners, is a viable alternative to fossil fuels [1-3]. In this context, it is necessary to know the factors affecting to the combustion process to achieve the lowest polluting emissions and the utmost combustion efficiency.

In this work, the combustion of three vegetable oils; refined soybean oil (ReSyO), refined rapeseed oil (ReRpO) and raw rapeseed oil (RaRpO), is performed in an emulsion (air-fuel) burner. Polluting emissions (CO, NO_x, C_xH_y) and combustion efficiency (?) which have been obtained by modifying two adjustable parameters of the burner, secondary air flow and fuel flow, have been studied. Finally, an ANOVA of the results obtained was carried out. The aim of this work is to look for trends between the operational parameters of the installation and the results of combustion.



Presenter: María Ascensión SANZ-TEJEDOR, University of Valladolid, Organic Chemistry Dpt., SPAIN

Presenter's biography:

PhD in Organic Chemistry from the University of Valladolid, Associate Prof. in the Engineering School (University of Valladolid). Currently, my research activity focuses in the "Combustion of Bioliquids" having participated in projects and contract research and published in international journals.

Biographies and Short introductive summaries are supplied directly by presenters and are published here unedited

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