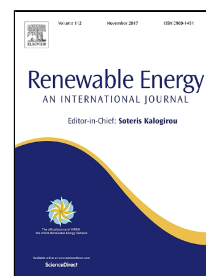


Accepted Manuscript

Effect of acid pretreatment and process temperature on characteristics and yields of pyrolysis products of peanut shells

L.I. Gurevich Messina, P.R. Bonelli, A.L. Cukierman



PII: S0960-1481(17)30688-2
DOI: 10.1016/j.renene.2017.07.065
Reference: RENE 9040
To appear in: *Renewable Energy*
Received Date: 13 December 2016
Revised Date: 07 June 2017
Accepted Date: 10 July 2017

Please cite this article as: L.I. Gurevich Messina, P.R. Bonelli, A.L. Cukierman, Effect of acid pretreatment and process temperature on characteristics and yields of pyrolysis products of peanut shells, *Renewable Energy* (2017), doi: 10.1016/j.renene.2017.07.065

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4 L.I. Gurevich Messina^{a,b}, P.R. Bonelli^{a,b}, A.L. Cukierman^{a,b,c,*}

5

6 ^a *Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales, Depto. de*
7 *Industrias, Programa de Investigación y Desarrollo de Fuentes Alternativas de*
8 *Materias Primas y Energía (PINMATE), Int. Güiraldes 2620, Ciudad Universitaria.*
9 *(C1428BGA) Buenos Aires, Argentina.*

10 ^b *Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Godoy Cruz*
11 *2290 (C1425FQB), Buenos Aires, Argentina.*

12 ^c *Universidad de Buenos Aires, Facultad de Farmacia y Bioquímica, Depto. de*
13 *Tecnología Farmacéutica, Cátedra de Tecnología Farmacéutica II. Junín 956.*
14 *(C1113AAD) Buenos Aires, Argentina.*

15

16 **Abstract**

17 Pyrolysis of acid pretreated peanut (*Arachis hypogaea*) shells was examined in order to
18 improve the yield of liquids (bio-oils) and the characteristics of the three kinds of
19 pyrolysis products. Also, pyrolysis of the pristine shells was comparatively investigated.
20 The acid pretreatment was carried out employing a dilute HCl solution and it
21 successfully diminished the ash content of the shells. Pyrolysis assays were performed
22 in a fixed-bed reactor at different process temperatures (400°C, 500°C, and 600°C). The
23 maximum bio-oil yield was obtained at a temperature of 500°C for both the pretreated

* Corresponding author. Tel: 54-11-45763383. Fax: 54-11-45763366
E-mail address: analea@di.fcen.uba.ar

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