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(54) Title: PREPARATION METHOD FOR HYDROPYROLYSIS CATALYST WITH HIGHER DENSITY; BIOMASS HYDROPY-
ROLYSIS PROCESS USING OBTAINED CATALYST

(57) Abstract: The present invention provides a method of preparing a hydropyrolysis catalyst, said process comprising the steps of:
i) forming a slurry comprising alpha alumina, an alumina precursor, a binder and water; ii) performing spray granulation of said slurry
to prepare solid catalyst or carrier spheres; and iii) drying the catalyst or carrier spheres and then calcining them at a temperature in the
range of at least 450 °C and no more than 900 °C, wherein active species comprising a molybdenum and a metal selected from those in
groups 8, 9 and 10 of the periodic table are incorporated into the hydropyrolysis catalyst, either by incorporating a molybdenum source
and a source of a metal selected from those in groups 8, 9 and 10 of the periodic table into the slurry in step i) or by impregnating the
calcined carrier spheres with a solution comprising a molybdenum source and a source of a metal selected from those in groups 8, 9
and 10 of the periodic table and subsequently drying and then calcining at a temperature in the range of at least 450 °C and no more
than 900 °C the thus-impregnated carrier spheres to provide the hydropyrolysis catalyst. The present invention also provides a biomass
hydropyrolysis process with the obtained catalyst.

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