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(54) **FORMATE-ASSISTED PYROLYSIS**

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(58) **Field of Classification Search**

USPC 585/240, 242

See application file for complete search history.

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(57) **ABSTRACT**

The present invention provides, among other thing, methods for creating significantly deoxygenated bio-oils form biomass including the steps of providing a feedstock, associating the feedstock with an alkali formate to form a treated feedstock, dewatering the treated feedstock, heating the dewatered treated feedstock to form a vapor product, and condensing the vapor product to form a pyrolysis oil, wherein the pyrolysis oil contains less than 30% oxygen by weight.

14 Claims, 8 Drawing Sheets