

A system and method for processing biomass into hydrocarbon fuels that includes processing a biomass in a hydrolysis reactor resulting in hydrocarbon fuels and a process vapor stream and cooling the process vapor stream to a condensation temperature resulting in an aqueous stream. The aqueous stream is sent to a catalytic reactor where it is oxidized to obtain a product stream containing ammonia and ammonium sulfate. A resulting cooled product vapor stream includes non-condensable process vapors comprising  $H_2$ ,  $CH_4$ ,  $CO$ ,  $CO_2$ , ammonia and hydrogen sulfide.