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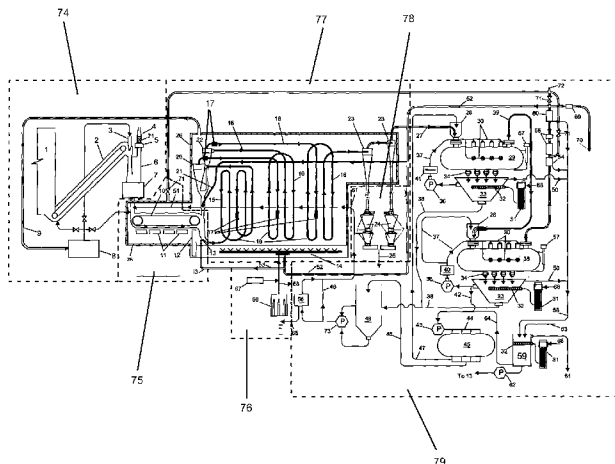
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(54) Title: METHODS AND APPARATUS FOR SOLID CARBONACEOUS MATERIALS SYNTHESIS GAS GENERATION



(57) Abstract: Methods and apparatus may permit the generation of consistent output synthesis gas from highly variable input feedstock solids carbonaceous materials. A stoichiometric objectivistic chemic environment may be established to stoichiometrically control carbon content in a solid carbonaceous materials gasifier system. Processing of carbonaceous materials may include dominative pyrolytic decomposition and multiple coil carbonaceous reformation. Dynamically adjustable process determinative parameters may be utilized to refine processing, including process utilization of negatively electrostatically enhanced water species, process utilization of flue gas (9), and adjustment of process flow rate characteristics. Recycling may be employed for internal reuse of process materials, including recycled negatively electrostatically enhanced water species, recycled flue gas (9), and recycled contaminants. Synthesis gas generation may involve predetermining a desired synthesis gas for output and creating high yields of such a predetermined desired synthesis gas.

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