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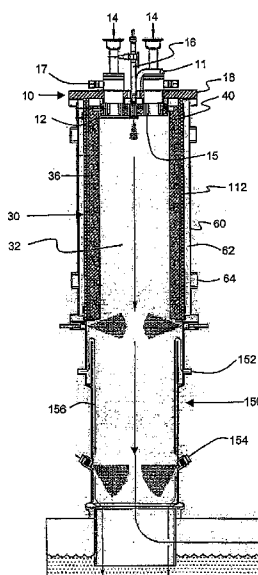
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(54) Title: REACTOR DESIGN TO REDUCE PARTICLE DEPOSITION DURING PROCESS ABATEMENT



(57) Abstract: Systems and methods are provided for controlled combustion and decomposition of gaseous pollutants while reducing deposition of unwanted reaction products from within the treatment systems. Exemplary systems include a novel thermal reaction chamber design having stacked porous ceramic rings through which fluid, e.g., gases, may be directed to form a boundary layer along the interior wall of the thermal reaction chamber, thereby reducing particulate matter buildup thereon. The systems may further include the introduction of fluids from the center pilot jet to alter the aerodynamics of the interior of the thermal reaction chamber.



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