ABSTRACT

MOLTEN SALT TREATMENT SYSTEM AND PROCESS

A molten salt treatment system and process can include one or more tubular conduits flowably connected to a molten salt reactor, the tubular conduit containing concentrically within it a pipe or a shaft separated by an annular space therebetween, and one or more gas sources connected to feed gas into the annular space. The system may include a scrubbing device flowably connected to a molten salt reactor off-gas outlet to receive an off-gas, a first heating device configured to heat the effluent from the scrubbing device, and a filtering device flowably connected to receive the effluent from the heating device. An overflow conduit may be flowably connected to a molten salt reactor overflow outlet to receive molten salt therefrom and discharge the molten salt to a salt recovery vessel, and a blower or other gas mover may be connected to the molten salt reactor and the recovery vessel to prevent backflow of cold gases through the overflow outlet to the molten salt reactor.

FIG. 3