

ABSTRACT

**FIRE SUPPRESSION SYSTEM USING HIGH VELOCITY LOW PRESSURE
EMITTERS**

A fire suppression system is disclosed. The system includes a source of pressurized gas and a source of pressurized liquid. At least one emitter is in fluid communication with the liquid and gas sources. The emitter is used to establish a gas stream, atomize and entrain the liquid into the gas stream and discharge the resulting liquid-gas stream onto the fire. A method of operating the system is also disclosed. The method includes establishing a gas stream having first and second shock fronts using the emitter, atomizing and entraining the liquid with the gas at one of the two shock fronts to form a liquid-gas stream, and discharging the stream onto the fire. The method also includes creating a plurality of shock diamonds in the liquid-gas stream discharged from the emitter.