

ABSTRACT OF THE DISCLOSURE

Process for generating moisture for use in semiconductor manufacturing, the process comprising feeding hydrogen and oxygen into a reactor provided with a platinum-coated catalyst layer on an interior wall, thus enhancing the reactivity between hydrogen and oxygen by catalytic action and instantaneously reacting the reactivity-enhanced hydrogen and oxygen at a temperature below the ignition point to produce moisture without undergoing combustion at a high temperature, wherein the amount of unreacted hydrogen occurring in the generated moisture in starting up or terminating the moisture generating reaction is minimized and wherein undesired reactions such as undesired silicon oxide film coating are avoided. When the generation of moisture is started up by feeding hydrogen and oxygen into the reactor provided with a platinum-coated catalyst layer on the inside wall thereof, oxygen first starts to be fed and, some time after that, the supply of hydrogen is begun. In terminating the moisture generating operation by cutting off the supply of hydrogen and oxygen into the reactor, the feeding of hydrogen is first stopped and, some time after that, the supply of oxygen is shut off.