[CLAIMS]

[Claim 1]

An exhaust gas treatment system comprising:

a reactor into which exhaust gas is introduced;

a first spraying unit spraying seawater or aqueous absorbent(regulated gas-lean absorbent) into the inside of the reactor;

a packing contacting the exhaust gas passing through the first spraying unit; and

a second spraying unit spraying the aqueous absorbent into the exhaust gas passing through the packing,

wherein the aqueous absorbent is an aqueous alkaline solution,

the exhaust gas treatment system operates in an open loop state or in a closed loop state, and

in the open loop state, the first spraying unit sprays seater and the second spraying unit sprays the aqueous absorbent, and in the closed loop state, both the first spraying unit and the second spraying unit spray the aqueous absorbent.

[Claim 2]

The exhaust gas treatment system of claim 1, further comprising an aqueous absorbent tank storing the aqueous absorbent and connected to the first spraying unit and the second spraying unit to supply the aqueous absorbent thereto.

[Claim 3]

The exhaust gas treatment system of claim 2, wherein the reactor includes an exhaust gas inlet through which the exhaust gas is introduced, and a regulated gas-rich absorbent drain port through which regulated gas-rich absorbent, the seawater or the aqueous absorbent used to treat the exhaust gas, is drained, and

a regulated gas-rich absorbent drainage line, and a regulated gas-rich absorbent recovery line connected to the aqueous absorbent tank, are connected to the regulated gas-rich absorbent drain port, respectively.

[Claim 4]

The exhaust gas treatment system of claim 3, wherein a regulated gas-rich absorbent recovery valve included in the regulated gas-rich absorbent recovery line is closed and a regulated gas-rich absorbent drainage valve included in the regulated gas-rich absorbent drainage line is opened to enter the open loop state, or the regulated gas-rich absorbent drainage valve is closed and the regulated gas-rich absorbent valve is opened to enter the closed loop state.

[Claim 5]

The exhaust gas treatment system of claim 2, further comprising a third spraying unit spraying the aqueous absorbent into the exhaust gas passing through the second spraying unit.

[Claim 6]

The exhaust gas treatment system of claim 5, wherein the first, second, and third spraying units include first, second, and third supply pipes in which at least portions of one sides are provided inside the reactor and the other sides are connected to the aqueous absorbent tank, respectively, and a seawater spray supply line connected to a seawater source is connected to the first supply pipe.

[Claim 7]

The exhaust gas treatment system of claim 6, wherein the seawater spray supply line includes a seawater spray supply valve and a seawater spray supply pump, the first, second, and third supply pipes include first, second, and third aqueous absorbent supply valves, respectively, an aqueous absorbent supply line including an aqueous absorbent supply pump is connected to the aqueous absorbent tank, and the other sides of the first, second, and third supply pipes are connected to the aqueous absorbent supply line.

[Claim 8]

The exhaust gas treatment system of claim 7, wherein the first, second, and third spraying units further include first, second, and third spray nozzles respectively provided in portions of the first, second, and third supply pipes provided inside the reactor.

[Claim 9]

The exhaust gas treatment system of claim 2, further comprising an aqueous absorbent preparing unit connected to the aqueous absorbent tank, and preparing the aqueous absorbent and supplying the prepared aqueous absorbent to the aqueous absorbent tank.

[Claim 10]

A ship comprising:

a hull; and

the exhaust gas treatment system according to any one of claims 1 to 9, provided in the hull.