

[Document Name]Patent Claims

[Claim 1]

A neutron generating electrode pair comprising : a first electrode including a conductor and a hydrogen storage alloy wire spirally wound on said conductor ; and a 2 electrode having a cylindrical shape and a mesh shape disposed around said first electrode.

[Claim 2]

A vacuum chamber, an exhaust device for exhausting the inside of the vacuum chamber, a deuterium gas supply device for supplying deuterium gas into the vacuum chamber, and a conductor disposed in the vacuum chamber ;A neutron generator comprising : a first electrode including a hydrogen storage alloy wire spirally wound on a conductor ; a 2 electrode having a cylindrical shape and a mesh shape disposed around the first electrode ; and a power supply unit for applying a voltage between the electrode pair.

[Claim 3]

(1) evacuating the inside of the vacuum chamber ;  
(2) a step of discharging by applying a voltage between the electrode pair for generating neutrons including a first electrode including a conductor and a hydrogen storage alloy wire spirally wound around the conductor in the vacuum chamber and a cylindrical and net-like 2 electrode arranged around the first electrode and having a cylindrical shape ;  
(3) A neutron generation method comprising a step of supplying a deuterium gas into the vacuum chamber for a predetermined period of time while maintaining a voltage application between the pair of neutron generating electrodes and discharging the same.

[Claim 4]

The first electrode includes a vacuum chamber, an exhaust device for exhausting the inside of the vacuum chamber, a deuterium gas supply device for supplying deuterium gas into the vacuum chamber, a conductor, and a hydrogen storage alloy wire spirally wound around the conductor. A baggage inspection device comprising : a neutron generating device including a pair of electrodes for generating neutrons including a 2 electrode having a cylindrical shape and disposed around said first electrode ; and a power supply unit for applying a voltage between said pair of electrodes, and a neutron detecting device.