CLAIMS

1. A container refrigeration apparatus which includes a refrigerant circuit (20) performing a refrigeration cycle, and which is capable of being attached to a container (11) that stores plants (15) to cool air in the interior of the container (11), the container refrigeration apparatus comprising:

an oxygen concentration detector (51) which detects an oxygen concentration in the interior of the container (11); and

a gas mixture supplier (30) which supplies the interior of the container (11) with a gas mixture having a higher nitrogen concentration and a lower oxygen concentration than outside air, where the oxygen concentration of the gas mixture is higher than a predetermined target concentration for the interior of the container (11), wherein

the gas mixture supply device (30) is configured to:

reduce the oxygen concentration in the interior of the container (11) to the vicinity of the oxygen concentration of the gas mixture by supplying the interior of the container (11) with the gas mixture if the oxygen concentration detected by the oxygen concentration detector (51) is higher than the oxygen concentration of the gas mixture; and

stop supplying the gas mixture since the oxygen concentration in the interior of the container (11) has been reduced to the vicinity of the oxygen concentration of the gas mixture and until the oxygen concentration in the interior of the container (11) is reduced to the target concentration by respiration of the plants (15) absorbing oxygen in the air and releasing carbon dioxide into the air.

2. The container refrigeration apparatus of claim 1, wherein

the gas mixture supply device (30) is configured to increase the oxygen

an exhaust portion (46) configured to exhaust the air in the interior of the container (11) out of the container (11) if the carbon dioxide concentration detected by the carbon dioxide concentration detector (52) is higher than a predetermined target concentration.

6. The container refrigeration apparatus of any one of claims 1–~~4~~5, further comprising

a carbon dioxide concentration detector (52) which detects a carbon dioxide concentration in the interior of the container (11), wherein

the gas mixture supply device (30) is configured to supply the interior of the container (11) with the gas mixture with a higher oxygen concentration than the air in the interior of the container (11) if the carbon dioxide concentration detected by the carbon dioxide concentration detector (52) is higher than the predetermined target concentration.

7. The container refrigeration apparatus of any one of claims 1–6, further comprising

an inert gas supplier (55) which supplies the interior of the container (11) with an inert gas used to reduce the oxygen concentration in the interior of the container (11) without causing an increase in the carbon dioxide concentration in the interior of the container (11), wherein

the inert gas supplier (55) is configured to reduce the oxygen concentration in the interior of the container (11) to the vicinity of the oxygen concentration of the gas mixture by supplying the interior of the container (11) with the inert gas before the gas mixture supply device (30) supplies the interior of the container (11) with the gas mixture.

8. The container refrigeration apparatus of claim 7, wherein