CLAIMS

1. An air composition adjustment device comprising:

a transfer unit (31) that transfers air;

an adjuster (34, 35) that adjusts the composition of air in a target space;

an air circuit (3) that introduces air into the adjuster (34, 35) by the transfer unit (31) and supplies composition-adjusted air to the target space;

a gas sensor (51) arranged in the target space to measure a component in air; and

a cover unit (100) including a cover (101) that covers around the gas sensor (51), an inflow path (111) that takes air into the cover (101), and an outflow path (112) that causes air to flow out from the cover (101), wherein

an inner diameter of the inflow path (111) and an inner diameter of the outflow path (112) are 1 mm or more and 4 mm or less.

2. An air composition adjustment device comprising:

a transfer unit (31) that transfers air;

an adjuster (34, 35) that adjusts the composition of air in a target space;

an air circuit (3) that introduces air into the adjuster (34, 35) by the transfer unit (31) and supplies composition-adjusted air to the target space;

a gas sensor (51) arranged in the target space to measure a component in air; and

a cover unit (100) including a cover (101) that covers around the gas sensor (51), an inflow path (111) that takes air into the cover (101), and an outflow path (112) that causes air to flow out from the cover (101), wherein

the gas sensor (51) includes a sensor (51a) positioned on a straight line connecting the inflow path (111) and the outflow path (112) together.

3. An air composition adjustment device comprising:

a transfer unit (31) that transfers air;

an adjuster (34, 35) that adjusts the composition of air in a target space;

an air circuit (3) that introduces air into the adjuster (34, 35) by the transfer unit (31) and supplies composition-adjusted air to the target space;

a gas sensor (51) arranged in the target space to measure a component in air; and

a cover unit (100) including a cover (101) that covers around the gas sensor (51), an inflow path (111) that takes air into the cover (101), and an outflow path (112) that causes air to flow out from the cover (101), wherein

the gas sensor (51) is a zirconia sensor and is configured to generate heat while being turned ON, and

the cover (101) is configured to generate an air flow due to heat generation of the gas sensor (51).

4. An air composition adjustment device comprising:

a transfer unit (31) that transfers air;

an adjuster (34, 35) that adjusts the composition of air in a target space;

an air circuit (3) that introduces air into the adjuster (34, 35) by the transfer unit (31) and supplies composition-adjusted air to the target space;

a gas sensor (51) arranged in the target space to measure a component in air; and

a cover unit (100) including a cover (101) that covers around the gas sensor (51), an inflow path (111) that takes air into the cover (101), and an outflow path (112) that causes air to flow out from the cover (101), wherein

a sensor casing (90) that houses the gas sensor (51) therein,

the sensor casing (90) including an introduction port (94) that introduces air into the sensor casing (90); and

the cover (101) being arranged between the introduction port (94) and the gas sensor (51).

5. The air composition adjustment device of claims 1 to 4, wherein

the outflow path (112) is positioned at an upper portion of the cover (101).

6. The air composition adjustment device of any one of claims 1 to 5, wherein

the inflow path (111) is positioned at a lower portion of the cover (101).

7. The air composition adjustment device of any one of claims 1 to 6, wherein

the inflow path (111) is formed by a first hole (h1) provided in the cover (101), and

the outflow path (112) is formed by a second hole (h2) provided in the cover (101).

8. The air composition adjustment device of any one of claims 1 to 7, wherein

the inflow path (111) is formed by a first tubular portion (131) connected to the cover (101), and

the outflow path (112) is formed by a second tubular portion (132) connected to the cover (101).

9. The air composition adjustment device of claim 4, wherein

the introduction port (94) is arranged below the gas sensor (51), and

the cover (101) has a portion arranged below the gas sensor (51).

10. The air composition adjustment device of claim 4, wherein

the introduction port (94) includes a first introduction port (94a) that introduces air in the target space into the sensor casing (90) and a second introduction port (94b) that introduces air outside the target space into the sensor casing (90), and

at least one of the first introduction port (94a) or the second introduction port (94b) is arranged below the gas sensor (51), and

the cover (101) has a portion arranged below the gas sensor (51).

11. The air composition adjustment device of any one of claims 1 to 3, further comprising:

a contact reducer that reduces contact of a corrosive component in air with the gas sensor (51),

the contact reducer including an adsorbing member (105) being capable of adsorbing the corrosive component in the air thereto.

12. The air composition adjustment device of claim 11, further comprising:

a sensor casing (90) that houses the gas sensor (51) therein,

the adsorbing member (105) being arranged inside the sensor casing (90).

13. The air composition adjustment device of claim 11, further comprising:

a sensor casing (90) that houses the gas sensor (51) therein, and

and an introduction path (59) that introduces air into the sensor casing (90), the introduction path (59) being connected to the sensor casing (90),

the adsorbing member (105) being arranged in the introduction path (59).

14. The air composition adjustment device of claim 11, further comprising:

a sensor casing (90) that houses the gas sensor (51) therein,

the sensor casing (90) having an introduction port (94) that introduces air into the sensor casing (90), and

the adsorbing member (105) being arranged in the introduction port (94).

15. The air composition adjustment device of claim 11, wherein

the adsorbing member (105) is arranged in an inflow portion through which air flows into the air circuit (3).

16. The air composition adjustment device of any one of claims 11 to 15, wherein

the adsorbing member (105) is capable of adsorbing a corrosive component including sulfur or phosphorus.

17. A refrigeration apparatus comprising:

components (21 to 24) of a refrigerant circuit (20) that perform a refrigeration cycle; and an air composition adjuster (60) that adjusts the composition of air in a target space,

the refrigerant circuit (20) including an evaporator (24) that cools the air in the target space, and

the air composition adjuster (60) including the air composition adjustment device of any one of claims 1 to 16.

18. A transportation container comprising:

a container body (2) configured to transport a fresh item; and a transportation refrigeration apparatus (10) configured to cool the inside of the container body (2) as a target space,

the transportation refrigeration apparatus (10) including the refrigeration apparatus of claim 17.