

★★★ <第38回知的財産翻訳検定試験【第20回和文英訳】> ★★★
《 2 級課題》

【問 1】

【Field of the Invention】

【0001】

The present invention relates to an ammonia fuel combustion system which performs combustion of a mixture of an ammonia fuel and combustion air. More particularly, the present invention pertains to an ammonia fuel combustion system in which an ammonia fuel is reformed to enhance its combustibility to implement stable combustion with combustion air even at a comparatively low temperature, thereby suppressing generation of NOx during combustion.

【Background Art】

【0002】

In general, combustion systems which burn a mixture of a fuel and combustion air employ a hydrocarbon fuel as the fuel.

【0003】

Burning a hydrocarbon fuel together with combustion air by using this type of combustion system undesirably allows vigorous generation of greenhouse gases such as carbon dioxide.

【0004】

The present demand for reducing generation of greenhouse gases has given rise to studies on combustion systems which use fuels other than hydrocarbon fuels.

【0005】

Using ammonia as a fuel for combustion systems is known. Ammonia fuel, however, exhibits inferior combustibility compared with hydrocarbon fuels, and it is therefore difficult to effect complete combustion with ammonia fuel. In addition, combustion of ammonia fuel at low temperatures tends to allow misfire. Attempts to intensify combustion of ammonia fuel elevate the flame temperature, undesirably promoting generation of NOx.

【問 2】

【0013】

Throughout the description, the term “front face” denotes a major surface of a tabular organic EL panel or each of the layers constituting the EL panel, whereas the term “reverse face” denotes a surface opposite to the front face. The term “reverse face of a wiring member” denotes a surface of the wiring member that faces the front face of the organic EL panel, while “front face of a wiring member” denotes a surface opposite to the reverse face of the wiring member. The term “front face of a base member” denotes the surface of the base member that faces the reverse face of the organic EL panel, while “reverse face of the base member” denotes the surface of the base member opposite to the front face of the same. In this specification, terms denoting ordinal numbers such as “first” and “second” are used only to distinguish terms prefixed by such ordinal numbers and are not intended to suggest any specific meaning such as order or preference. Expressions such as “PPP-*QQQ*” denote “not less than PPP and not more than *QQQ*”.

【0015】

Figure 2 is an enlarged sectional view of the organic EL panel 1 shown in Figure 1 taken along a plane parallel to a first direction and containing the first and second terminals 21a, 22a. Figure 3 is an enlarged sectional view of the organic EL panel shown in Figure 1 taken along a plane parallel to a second direction and devoid of the terminals.

An intermediate region of the organic EL panel where the sectional structure does not change is omitted from Figure 3. The term “first direction” denotes an arbitrary direction with respect to the organic EL panel, while “second direction” denotes a direction orthogonal to the first direction.

【問 3】

1. A delivery robot system, comprising:

a purchase order input unit through which a purchaser places a purchase order for an item;

an autonomous mobile robot configured to deliver the item to the purchaser;

a positional information acquisition unit configured to continuously or intermittently acquire positional information concerning the position of the purchase order input unit; and

a destination setting unit for setting a destination of the autonomous mobile robot in accordance with the positional information and for updating the destination at a regular timing, thereby causing the autonomous mobile robot to move to the updated destination.

2. The delivery robot system of claim 1, wherein the regular timing is set in accordance with the moving speed of the autonomous mobile robot.

3. The delivery robot system of claim 1 or 2, wherein the destination setting unit is configured to set, as the destination, a position which is within reach of the autonomous mobile robot and which is nearest to the purchase order input unit and to send information concerning the set destination to the purchase order input unit, when the purchase order input unit is beyond the reach of the autonomous mobile robot.