★★★ ＜第 21 回知的財産翻訳検定試験【第 10 回英文和訳】＞ ★★★
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【解答作成にあたっての注意】
１．解答字数に特に制限はありません。適切な個所で改行してください。
２．課題文に段落番号がある場合、これを訳文に記載してください。
３．課題は３題あります。それぞれの課題冒頭の指示に従い、３題すべて解答してください。

問１
下記の英文はある米国特許明細書の記載からその一部を抜粋したものです。英語見出し語も含め全文を日本語に翻訳してください。

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part of U.S. patent application Ser. No. 13/185,491, filed on Jul. 18, 2011, entitled WEARABLE PRODUCT, which is incorporated herein by reference in its entirety.

BACKGROUND OF THE INVENTION

[0002] This application relates generally to wearable personal digital interfaces and, more specifically, to an eyeglass device adapted for viewing and hearing signals from remote devices.

[0003] Increased functionality of wearable personal digital interfaces has led to their popularity. Eyewear having a display and earphones is currently proposed on the market, and usually such eyewear tends to have an appearance of conventional eyeglasses. However, long-term constant wearing of such a bulky device may cause inconvenience to the users. For example, when the user wants to concentrate on some task or to view some objects carefully, the wearable interface will impede visual activity of the user. Therefore, the user will need to take off the wearable interface. After taking off the wearable interface, the user will need to put the wearable interface into his pocket, special case, or a bag.

[0004] In addition to that, when taking off the wearable interface in public places, such as cafes, offices, sports facilities, and the like, the wearable interface may be lost there. Moreover, the user may need to take off the wearable interface at the moment when his hands are busy and he cannot hold the wearable interface.

問 2
下記の英文はある米国特許明細書における実施例の説明の記載からその一部を抜粋したものです。全文を日本語に翻訳してください。

A preferred embodiment of the apparatus includes a flow through device in fluid communication with a reduction unit, which is in turn in fluid communication with a catalyzed diesel particulate filter. Preferably, the flow through device, reduction unit and the diesel particulate filter will be placed in a sealed container, such as one made of stainless steel or other suitable material, to prevent the escape of gases. Diesel exhaust is received by the flow through device and passes through the device and the reduction unit, and into the filter before being emitted into the atmosphere.

The flow through device may be made from cordierite, or stainless steel. Alternatively, the flow through device may be made from a ceramic material or any other material common to use in the art. The substrate is coated with an oxide formulation of hematite (Fe_2O_3) and bixbyite ($(Mn_{1.5},Fe_{0.5})O_3$), wherein the ratio of hematite to bixbyite ranges from 1:1 to 1:9. The optimum ratio of hematite to bixbyite for low temperature removal of soot is about 1:7, where the NO_2 formation increases by up to 50% at temperatures lower than 100° C.

In one preferred embodiment, the substrate is coated using solution made from a ferric salt and a manganese salt prepared by the coprecipitation method. The substrate is coated immediately after the ferric salt and manganese salt are combined. The coated substrate is dried and calcinated at 500° C. for two hours. During the drying, the coating undergoes a shrinkage process which causes micro-cracks to form in the surface, increasing the surface area of the coating. The heating, among other things, stabilizes the oxidation state of the composition and bonds the individual grains to the surface of the substrate.

問 3
下記の英文はある米国特許明細書における請求項の記載からその一部を抜粋したものです。全体を日本語に翻訳してください。翻訳にあたっては、文末にある指定用語を用いてください。

1. An ice buildup inhibitor system, the system comprising:

an aluminum closed gutter installed on the eave of a roof and constructed of seamless 0.032-inch thick aluminum alloy, the gutter including:

a water flow conduit for high-flow water conduction;

a forward guard having an upper lip; and

a top guard;

an ice buildup inhibitor constructed of seamless 0.032-inch thick aluminum alloy, the ice buildup inhibitor including:

a support substrate providing mechanical support;

a mounting hook affixed to the support substrate and configured to removably engage the upper lip of the forward guard;

a self-regulating heat strip;

a heat strip holder affixed to the support substrate and configured to receive and at least partially enclose the heat strip; and

a power supply line electrically connected to the heat strip;

a control system electrically connected to the power supply line and provided to selectively provide power to the supply line, the control system being selected from the group consisting of a manual controller, and automated control module, and a continuous automated control module;

and

a power supply electrically connected to the control system and configured to make available power to the control system, the power supply being selected from the group consisting of alternating current commercial power and battery-stored solar power.

指定用語
ice buildup inhibitor 凍結層防止（装置）
closed gutter 閉鎖型樋
eave ひさし