The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HIDEAKI KATASHIBA,
SATOSHI WACHI, KENRO MITSUDA,
and KOUJI HAMANO

Appeal No. 2003-1560
Application No. 09/899,985

ON BRIEF

Before GARRIS, OWENS and KRATZ, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-5, 10, 11 and 13. Claims 6-9, which are all of the other claims pending in this application, have been withdrawn from further consideration by the examiner as drawn to a non-elected invention.

BACKGROUND

Appellants' invention relates to an internal combustion engine exhaust gas purification device including several catalysts. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

> 1. A device for purifying exhaust gas of an internal combustion comprising:
>
> first and second three-way catalysis for purifying exhaust gas in an exhaust systme of the internal engine;
>
> an electrochemical catalyst interposed between the first and second three-way catalysts, said electrochemical catalyst including an electron conducting substance and an ion conducting substance for promoting an oxidizing reaction and an reducing reaction by the conduction of ions and electrons to thereby electrochemically purify the exhaust gas in the exhaust system.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Takeshima et al. (Takeshima)	5,388,406	Feb. 14, 1995
Schmelz	5,628,186	May 13, 1997
Nishimura et al. (Nishimura)	6,116,208	Sep. 12, 2000
Murphy et al. (Murphy)	6,122,909	Sep. 26, 2000

Claims 1-3 and 13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takeshima. Claims 1-3 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takeshima in view of Nishimura. Claims 4 and 5 stand rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Takeshima in view of Nishimura and Murphy. Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takeshima in view of Nishimura and Schmelz.

We refer to the brief and reply brief and to the answer for a complete exposition of the opposing viewpoints expressed by appellants and the examiner concerning the issues before us on this appeal.

OPINION

Upon consideration of the respective positions advanced by appellants and the examiner with respect to the rejections that are before us for review, we find ourselves in agreement with appellants' position in that the examiner has failed to carry the burden of establishing a prima facie case of anticipation or obviousness. Accordingly, we will not sustain any of the examiner's stated rejections.

As for the § 102(b) rejection of claims 1-3 and 13 over Takeshima, all of the so rejected claims require that an electrochemical catalyst that is interposed between two three-way catalysts possesses oxidation reaction and reducing reaction promotion functional attributes in addition to including an electron conducting substance and an ion conducting substance.

In applying Takeshima as an anticipatory reference, the examiner takes the view that the element (56) depicted in figures 7 and 8 of Takeshima is an electrochemical catalyst corresponding to and having all of the characteristics of appellants' claimed electrochemical catalyst.

According to appellants, the examiner has not established that Takeshima's No_x absorption and release material (56) is a substance corresponding to the claimed electrochemical catalyst that possesses reduction promotion activity in addition to the other claimed requirements. Concerning this matter, the examiner (answer, pages 4 and 12) has taken the position that Takeshima discloses such reduction functionality for the No_x absorption and release material as evidenced by the disclosure at column 5, lines 43-45 of the patent. However, as pointed out by appellants (brief, page 8), the examiner's reliance on column 5, lines 43-45 of Takeshima is misplaced since that portion of the reference is describing attributes of the decomposition catalyst (4, fig. 1), <u>not</u> characteristics of the No_x absorption and release material as asserted by the examiner. Consequently, on this record, we will not sustain the stated rejection.

Regarding the § 103(a) rejection of claims 1-3 and 13 over Takeshima in view of Nishimura, the examiner's states that:

> [i]t would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching taught by Nishimura et al. in the device of Takeshima et al., since the use thereof would have promoted an understanding of how an electrochemical catalyst works and thus, encouraged the use of the electrochemical catalyst to purify harmful emissions in the exhaust gas of internal combustion engines.

It is well settled that the mere fact that the prior art may be modified to reflect features of the claimed invention does not make the modification obvious unless the desirability of such modification is suggested by the applied prior art. See In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). Here, the examiner has not identified any particularized suggestion based on specifically identified teachings of the applied references that would have led one of ordinary skill in the art to the claimed subject matter with a reasonable expectation in so doing. While the examiner refers to the lean No_x conversion catalyst (34, fig. 1) of Nishimura, the examiner has not fairly explained why one of ordinary skill in the art would have found that such a catalyst represents a teaching which would have suggested a modification of the copper and alkali earth oxide absorbent or the rare earth metal and noble metal absorbent of Takeshima in a manner so as to arrive at the here

claimed subject matter. See pages 9 and 10 of the brief. Accordingly, on this record, the rejection fails for lack of a sufficient factual basis upon which to reach a conclusion of obviousness. In re Fine, 837 F.2d 1071, 1073-74, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

Since the examiner has not explained how Murphy, the additional reference applied in the § 103(a) rejection of dependent claims 4 and 5, or Schmelz, the additional reference applied in the § 103(a) rejection of dependent claims 10 and 11, cure the above-noted deficiencies, all of the § 103(a) rejections are reversed.

CONCLUSION

The decision of the examiner to reject claims 1-3 and 13 under 35 U.S.C. § 102(b) as being anticipated by Takeshima; to reject claims 1-3 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Takeshima in view of Nishimura; to reject claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Takeshima in view of Nishimura and Murphy; and to reject

claims 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Takeshima in view of Nishimura and Schmelz is reversed.

REVERSED

BRADLEY R. GARRIS Administrative Patent Judge	)	
TERRY J. OWENS Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
PETER F. KRATZ Administrative Patent Judge	)	

PFK/sld

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