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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* SEIJI KAMBA, TAKASHI KONDO,  
HIROKAZU SETO, and YOSHIKO MIURA

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Appeal 2019-004663  
Application 14/884,132  
Technology Center 1700

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Before LINDA M. GAUDETTE, JAMES C. HOUSEL, and  
BRIAN D. RANGE, *Administrative Patent Judges*.

RANGE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–4, 6–11, 14, and 21–25. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Murata Manufacturing Company, Ltd. Appeal Br. 3.

## CLAIMED SUBJECT MATTER<sup>2</sup>

Appellant describes the invention as relating to a method of determining the presence or amount of an analyte by retaining the analyte on a structure having cavities, irradiating the structure, and detecting characteristics of the radiation. Spec. ¶ 2. Claim 1 is the only independent claim on appeal and is illustrative:

1. A method for measuring the presence or amount of at least one analyte, which is a particle, in a sample mixture, the method comprising:

passing the sample mixture including a first analyte and an impurity through a first filter having first and second opposing main surfaces and a plurality of cavities extending between the first and second opposing main surfaces, the size of the cavities of the first filter and/or the characteristics of the first surface being such that the first filter captures the impurity from the sample mixture whereby a modified sample mixture containing the first analyte exits the first filter;

subsequently passing the modified sample mixture through a second filter having third and fourth opposing main surfaces and a plurality of cavities extending between the third and fourth opposing main surfaces, the size of the cavities of the second filter and/or the characteristics of the third surface being such that the second filter captures the first analyte, the second filter differing from the first filter in at least one of cavity size and surface characteristics;

and thereafter irradiating the second filter with electromagnetic radiation that intersects the third opposing main surface and detecting characteristics of electromagnetic radiation scattered by the second filter so as to detect the presence or amount of the first analyte.

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<sup>2</sup> In this Decision, we refer to the Final Office Action dated September 21, 2018 (“Final Act.”), the Appeal Brief filed December 20, 2018 (“Appeal Br.”), and the Examiner’s Answer dated March 22, 2019 (“Ans.”).

## REFERENCES

The Examiner relies upon the prior art below in rejecting the claims on appeal:

<u>Name</u>	<u>Reference</u>	<u>Date</u>
Doucette et al. ("Doucette")	US 2012/0274933 A1	Nov. 1, 2012
Amako et al. ("Amako")	US 2013/0182258 A1	July 18, 2013
Ihi Corp. ("Ihi")	JP 2012-021829	Feb. 2, 2012

## REJECTIONS

The Examiner maintains<sup>3</sup> (Ans. 3) the following rejections on appeal:

- A. Claims 1–4, 6–11, 14, 21, and 25 under 35 U.S.C. § 102 as anticipated by Ihi. Ans. 4.
- B. Claims 22 and 23 under 35 U.S.C. § 103 as obvious over Ihi in view of Doucette. *Id.* at 6.
- C. Claim 24 under 35 U.S.C. § 103 as obvious over Ihi in view of Amako. *Id.* at 7.

## OPINION

We review the appealed rejections for error based upon the issues identified by Appellant and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential), (cited with approval in *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”)). After considering the

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<sup>3</sup> The Examiner’s Answer withdraws some rejections. Ans. 8.

evidence presented in this Appeal and each of Appellant's arguments, we are not persuaded that Appellant identifies reversible error. Thus, we affirm the Examiner's rejections for the reasons expressed in the Final Office Action and the Answer. We add the following primarily for emphasis.

As to the first ground of rejection, Appellant argues claims 1, 2, 6, 8, 10, 14, 21, and 25<sup>4</sup> as a group and argues claims 3, 4, 7, 9, and 11 as a second group. *See* Appeal Br. 9–10. Therefore, consistent with the provisions of 37 C.F.R. § 41.37(c)(1)(iv) (2013), we limit our discussion to claims 1 and 3. Claims 4, 7, 9, and 11 stand or fall with claim 3, and all other claims subject to the Examiner's first rejection stand or fall together with claim 1.

With regard to claim 1, Appellant argues that Ihi teaches that its electromagnetic waves propagate “*straight along the surface of filter 11*” rather than intersecting or irradiating the filter. Appeal Br. 9–10; *see also* Ihi ¶ 21 (“the terahertz wave generated from the generating means 13, and straight along the surface of the filter 11 is received by the receiving means [14]”)<sup>5</sup>. The Examiner, however, finds that Ihi teaches electromagnetic radiation that intersects the third opposing main surface of second filter 11. Ans. 8.

The preponderance of the evidence supports the Examiner's position. As the Examiner finds, Ihi Figure 2 illustrates second filter 11 disposed

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<sup>4</sup> We understand Appellant's argument of “Group 1” on pages 9–10 as also being directed to claim 25.

<sup>5</sup> Ihi refers to “receiving means 13” in this sentence of paragraph 21, but, in the context of Ihi, this appears to be a typographical error. Earlier in paragraph 21 and elsewhere, Ihi refers to “receiving means 14.” *See, e.g.*, Ihi ¶¶ 19, 21, 22, 23.

between generating means 13 and receiving means 14. Ans. 8–9. Based on Figure 2, at least some radiation would travel through filter 11. *Id.* at 8–10. Indeed, Ihi’s filter 11 is intended to adsorb “viruses and bacteria contained in the air” (Ihi ¶ 20) and the purpose of Ihi’s generating means 13 and receiving means 14 is to detect the virus or bacteria (*see, e.g., id.* ¶¶ 12, 22). Thus, the purpose and operation of Ihi further support that Ihi’s generating means 13 transmits radiation through the filter 11. Appellant does not persuasively refute the Examiner’s findings in with respect to this recitation.

Because Appellant’s argument does not identify error, we sustain the Examiner’s rejection of claims 1, 2, 6, 8, 10, 14, 21, and 25. Appellant does not argue in support of patentability of separately rejected claims 22–24. Accordingly, we also sustain the rejections of claims 22–24.

Claim 3 recites “the characteristics of the third opposing main surface of the second filter adsorb the first analyte.” Appeal Br. 17 (Claims App.). Appellant argues that “characteristics” are different than cavity size and that Ihi does not teach surface characteristics that adsorb the impurity. Appeal Br. 10–11. The Examiner finds, for example, that Ihi teaches providing a substance applied to filter 11 that adsorbs viruses/bacteria. Ans. 10 (citing Ihi ¶ 20). The Examiner determines that application of the adsorbing substance is a “characteristic” as claim 3 recites. *Id.* at 10–11. Appellant does not persuasively dispute the Examiner’s position in this regard, and the preponderance of the evidence supports the Examiner’s position (Ihi ¶ 20). We, thus, sustain the Examiner’s rejection of claims 3, 4, 7, 9, and 11.

## DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-4, 6-11, 14, 21, 25	102	Ihi	1-4, 6-11, 14, 21, 25	
22, 23	103	Ihi, Doucette	22, 23	
24	103	Ihi, Amako	24	
<b>Overall Outcome</b>			<b>1-4, 6-11, 14, 21-25</b>	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED