

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANKE BLUME,
STEFAN UHRLANDT,
RALF SCHMOLL,
DETLEF LUGINSLAND
and HERBERT THOMA

Appeal 2007-1931
Application 10/247,330
Technology Center 1700

Decided: October 15, 2007

Before EDWARD C. KIMLIN, CHUNG K. PAK, and PETER F. KRATZ,
Administrative Patent Judges.

KIMLIN, *Administrative Patent Judge.*

DECISION ON APPEAL

This is an appeal from the final rejection of claims 17 and 17-22.
Claims 8-16 stand withdrawn from consideration. Claim 1 is illustrative:

1. A precipitated silica having a
 - BET surface area ranging from 255 to 600 m²/g
 - CTAB surface area ranging from 150 to 350 m²/g

wherein the BET/CTAB surface ratio is ≥ 1.7 .

The Examiner relies upon the following references in the rejection of the appealed claims:

Uhrlandt	6,180,076 B1	Jan. 30, 2001
Blume	6,268,424 B1	Jul. 31, 2001
Materne	6,306,949 B1	Oct. 23, 2001
Kirino	6,433,066 B2	Aug. 13, 2002

Appellants' claimed invention is directed to a precipitated silica having a BET, CTAB, and BET/CTAB surface ratio within the recited ranges.

Appealed claims 1-7 and 17-22 stand rejected under 35 U.S.C. § 112, first paragraph, description requirement. Claims 1-7 and 17-21 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims of U.S. application no. 11/058,293. Claims 1-5, 7, 17-20, and 22 stand rejected unde4r 35 U.S.C. § 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Kirino. Also, claims 1-7 and 17-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirino in view of Materne, Blume or Uhrlandt.

We have thoroughly reviewed each of Appellants' arguments for patentability. However, we find that the Examiner's rejections are well-founded and in accord with current patent jurisprudence. Accordingly, we will sustain the Examiner's rejections for essentially those reasons expressed in the Answer.

We consider first the Examiner's rejection under 35 U.S.C. § 112, first paragraph, description requirement. It is the Examiner's position that the claimed lower limit for the BET surface area, 255 m²/g, does not have original descriptive support in the present Specification. Appellants, on the other hand, maintain that because the claimed CTAB value of 150 m²/g and minimum BET/CTAB value of 1.7 is clearly disclosed in the Specification, a simple multiplication of the minimum ratio value and the minimum CTAB value results in the claimed minimum BET value of 255 m²/g. Appellants direct attention to the Table on page 3 of the Specification for the CTAB value of 150 m²/g and page 2, line 12 of the Specification for the minimum BET/CTAB value of 1.7.

The flaw in Appellants' reasoning is that the Table at page 3 of the Specification does not designate the value of 150 for the CTAB as a minimum value, and significantly, the CTAB of 150 is associated with a BET of 400, not the claimed minimum value of 255. Also, the BET/CTAB ratio associated with a CTAB value of 150 is 2.67 not the minimum value claimed on 1.7. Also, Appellants' table includes other CTAB values well below 150. Consequently, we agree with the Examiner that one of ordinary skill in the art would not find that Appellants' original specification conveys

the concept of a precipitated silica having a minimum CTAB surface area of 150 m²/g, a minimum BETA surface area of 255 m²/g and a minimum BET/CTAB surface area of 1.7. Indeed, although Appellants' Specification states that the CTAB surface area has a maximum value of 350 m²/g, the Specification fails to describe a minimum value of 150.

We will also sustain that Examiner's rejection of claims 1-5, 7, 17-20, and 22 over Kirino to the extent it is based upon § 103. As pointed out by the Examiner and acknowledged by Appellants, Kirino discloses precipitated silica having a CTAB surface area in the range of 130 - 210 m²/g and a BET/CTAB ratio of 1.3 - 2.0. A calculation using the maximum values of 210 and 2.0 for the CTAB and BET/CTAB ratio, respectively, yields a BET value of 420, which is directly within the claimed ranged. As acknowledged by Appellants, the reference ranges for CTAB and BET/CTAB ratio overlap the claimed ranges. Accordingly, although Kirino does not exemplify precipitated silica having values for BET, CTAB and BET/CTAB surface area ratio within the claimed ranges to support a rejection under § 102, we agree with the Examiner that the overlapping ranges of Kirino establish a strong *prima facie* case of obviousness for the claimed invention. *In re Malagaria*, 499 F.2d 1297, 1303 (CCPA 1974).

The fact that the eleven examples of Kirino do not describe precipitated silica having the three relevant values all within the claimed ranges does not negate the obviousness of one of ordinary skill in the art selecting values within the ranges disclosed by Kirino that fall within the claimed ranges. Moreover, it is well settled that where patentability is

predicated upon change in condition of a prior art composition, such as a change in concentration or the like, such as surface area, the burden is on the applicant to establish with objective evidence that the change is critical, i.e., it leads to a new, unexpected result. *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Aller*, 220 F.2d 454, 456 (CCPA 1955). In the present case, Appellants have proffered no objective evidence that colloidal silica having values falling within the 3 claimed ranges produce unexpected results, vis-à-vis precipitated silica exemplified and fairly described by Kirino.

Concerning the Examiner's § 103 rejection of claims 1-7 and 17-22 over Kirino in view of Materne, Blume or Uhrlandt, Appellants have not addressed, let alone refuted, the Examiner's rationale that it would have been obvious for one of ordinary skill in the art to use the well known silane coupling agents of Materne, Blume or Uhrlandt in the composition of Kirino which includes silane coupling agents.

As a final point, we note that Appellants have not contested the Examiner's provisional double patenting rejection.

In conclusion, based on the foregoing and the reasons set forth by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(iv)(effective Sept. 13, 2004).

AFFIRMED

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